The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1503.—Vol. XXXIV. LONDON, SATURDAY, JUNE 11, 1864. {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE.

MR. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.

Mr. Crofts transacts business, in the way of PURCHASE or SALE, in every description of stocks, but particularly in BRITISH MINES, in no case departing from the position of a broker, at net prices. All orders meet with the utmost punctuality and zeal, and advice given as to the nature and eligibility of INVESTMENTS, when required. Mr. Crofts, from a lengthened experience of the Mining Market, is competent to advise as to the merits of any mine, and the desirability of buying, selling, or exchanging shares. To the latter department he devotes particular attention.

BUYER of Central Miners, and BUSINESS in Bedol-Aur.

*** The market being inanimate, and many shares of great merit lower, is in favour of buyers.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON. E.C.

James Lane has FOR SALE at nett prices:—5 Basset and Grylls, £12; 10 Boscawen, £3¼; 50 Crebor, 47s.; 20 Drake Walls, 32s. 6d.; 10 East Carn Brea, £8¼; 50 East Providence, £4; 20 Great Wheal Busy, £3¾; 10 East Lovell; 30 Great East Lovell, £3¼; 5 Grambler and St. Aubyn; 10 Great Wheal Fortune, £15; 20 Hallenbeagle, £5¼; 10 Marke Valley, £5; 30 North Basset, 31s.; 50 New Wheal Martha, £1½; 50 New Birch Tor and Vitifer, £3¼; 50 New Wheal Rose, 15s.; 10 North Treskerby, £3⅝; 10 Prosper and Michell United, £20; 25 New South Caradon, 11s.; 20 Pendeen Consols, £5; 30 St. Day United, 32s. 6d.; 20 Sithney and Carnmeal, £7¾; 10 Treworlis, £3; 10 Kitty (St. Agnes), £6¼; 5 Wentworth Consols, £16; 20 Wheal Grenville, £3¾.

EAST WHEAL LOVEL.—When the shares in this mine were selling at a THIRD OF THE PRESENT PRICE, I called particular attention to this property, and I still recommend a purchase of the shares at the present low price, for a great rise must quickly take place, as the mine, according to the agent's report this week, is looking better than ever. Friday evening—closing price, £17¾ to 18¼.
79, Old Broad-street, London, E.C., June 10.

CAPITALISTS AND SHAREHOLDERS IN MINES will do well to read the "Weekly Circular," published by Peter Watson, of (yesterday), Friday, 10th June, No. 326, Vol. VII. Price 6d. each copy (post paid). Forwarded on application. In this "Circular" there are several mines mentioned, which are certain to pay good interest, and the price of shares greatly and quickly advance in market value. Important information is also given as to main causes of the recent great depreciation in the market value of some of the most prominent dividend and progressive mines.—79, Old Broad-street, London, E.C., June 10.

PETER WATSON'S WEEKLY MINING CIRCULAR AND SHARE LIST, published every Friday, price 6d. each copy, forwarded on application. This Circular contains weekly important information with respect to all the principal dividend and progressive mines in Devon and Cornwall.
79, Old Broad-street, London, E.C.

STOCK AND SHAREDEALER.—Mr. PETER WATSON, ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 79, OLD BROAD-STREET, LONDON, E.C.

TELEGRAPHIC MESSAGES to BUY or SELL Railway, Bank, Mine, and other Shares and Stocks, punctually attended to on commission, or at nett prices for cash, or for fortnightly settlements, with advice as to purchases or sales.

Nineteen years' experience.

(Two in Cornwall and Seventeen in London.)

Bankers: Union Bank of London, and the Alliance Bank of London and Liverpool.

Every information can be obtained on personal application or by letter, as to purchase and sales of mine and other shares, and the best investment for capital.

From the close proximity of his Offices to the Stock Exchange, as well as the Mining Exchange, Peter Watson is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.—June 10, 1864.

MR. LELEAN, STOCK AND SHAREDEALER, 11, ROYAL EXCHANGE, LONDON, E.C.

Shares bought and sold on the usual commission. Telegraphic messages promply attended to. Mines inspected, and reliable information given. Established 15 years.

Mr. Lelean strongly recommends the purchase of Great South Chiverton at present prices. See report of the agent in another column. Also, East Treskerby, North Miners, and Great Laxey.—June 10, 1864.

MR. WM. BIRDSEY, MINE AND SHAREBROKER, No. 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN R. PIKE, GENERAL SHAREDEALER, OFFERS his SERVICES to INVESTORS. 3, PINNER'S COURT, OLD BROAD STREET, LONDON.

MR. JOHN B. REYNOLDS has REMOVED from 37, Old Broad-street, to 54, THREADNEEDLE STREET, and has FOR SALE:—

2 Vigra and Clogau.	25 Crowan Consols.	50 West Jane.
	15 Grenville, £8.	

WANTED, an OFFER of 25 Great South Tolgus and 5 Cook's Kitchen, and an OFFER FOR any part of the following, viz.:—

30 St. Just Con., 15s. paid.	100 West Martha.	30 Penralt.
50 ditto 20s. paid.	40 Clara United.	50 Rhafna, 10s. paid.

GEORGE RICE, SHAREBROKER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, (21 years' experience), has SPECIAL BUSINESS, as BUYER or SELLER, for cash or account, in the following mines:—

	Closing quotations.		Closing quotations.
Carne Camborne	19s 6d–20s. 6d.	Marke Valley	£ 4¾– 5
Chiverton	10¾–11	New Rosewarne	9⅛–10
Clifford Amalgamated	35⅛–36	North Treskerby	2¼– 2⅛
Devon and Bedford	12s. 6d. prem.	Prosper United	4⅛– 4⅜
Drake Walls	1¼– 1⅛	Nangiles	30 –31
East Lovell	17½–17⅝	Wheal Crebor	44s.–45s.
East Rosewarne	2¾– 3	West Chiverton	65 –70
East Caradon	28¾–29¼	Wheal Grenville (call paid)	7⅜– 7⅝
East Russell	4 – 4⅛	Wheal Seton	230–235
East Carn Brea	7⅞– 8⅛	Wheal Hope	3⅛– 3¼
East Grenville	4⅛– 4⅜	St. Day United	1⅛– 1⅜
Great Wheal Vor	33½–34	Wheal Harriett	1 – 1⅛

The Grenville District.—I have visited these mines during the past week, and can advise as to buying or selling. I recommended Wheal Grenville to be sold at £11⅜, and they are now £7½. I recommended at the same time East Grenville to be bought at £3, and they have been £8, and now £4⅜.

Money advanced on mining shares.

June 10, 1864. Bankers: Bank of London.

EAST LOVELL MINE.—I have visited this during the past week, and have had the mine inspected by agents of the best mines in Cornwall. Parties interested can learn by applying to me what are the real prospects of this mine, and whether shares should be bought or sold. Specimens of ore from the shaft can be seen at my office. GEORGE RICE.
5, Cowper's-court, Birchin-lane, June 10, 1864.

MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.

FOR SALE:—

2 Clifford Amal., £38¼.	50 Wheal Crebor, 45s. 6d.	1 Buller.
1 East Basset, £66.	1 Wheal Rose, £44.	20 North Shepherd.
10 East Carn Brea, £8.	100 Bedol-Aur.	50 East Great Work, 25s.,
20 E. Grenville, £4 11s 3d	20 Bryntail.	£2 10s. paid (advertised as East Vor in error last week).
10 East Russell, £4¼.	5 Bryn Gwiog.	5 Wheal Emma (an offer wanted).
10 Great South Tolgus.	5 Crane, £8.	5 No. Minera preference.
10 Hallenbeagle, £5¼.	10 Great Fortune.	15 Kelly Bray.
30 North Chiverton, £2⅛.	40 East Bottle Hill, 2s.	
30 No. Treskerby, £2 16 3	10 Tolvadden.	

East Lovell continues to improve. See agent's report in another column.

Mr. Sandy can confidently recommend two or three mines certain to have a great rise during the present year. Intending purchasers should apply at once.

A correct daily price list will be forwarded on application.

Business transacted at the closest market prices.

MR. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 17 years), has FOR SALE at nett prices:—50 Okel Tor, £3¾; 25 Hingston Down, £4; 80 Wheal Hartley, 14s. 6d.; 1 West Sharp Tor, £30; 1 West Damsel, £88; 300 Rosea Grand, 4s. 6d.; 5 East Lovell, £18; 150 East Seton, 6s. 6d.; 10 Wentworth Consols, £14⅞; 50 Wheal Hearle; 100 Garreg, 1s. 6d.; 15 Hallenbeagle, £5¼; 10 Great Wheal Vor, £34⅜; 5 Stray Park, £29; 30 East Grenville, £4⅜; 50 East Russell, £4⅝; 10 West Chiverton, £68¾; 20 Wheal Grenville, £7¾; 80 Redmoor, 4s. 6d.; 2 Wheal Seton, £231; 5 Cook's Kitchen, £183¼; 1 West Sharp Tor, £32⅜; 35 Wheal Pollard, 4s.; 100 Vale of Towy, 5s.; 150 Santa Barbara, 10s. 9d.; 35 United Mexican; 50 Prince of Wales, 7s. 6d.; 35 North Minera (Preference), 8s.; 150 Molland, 1s. 9d.; 50 East Treskerby, £1¾; 150 Don Pedro, 11s. 3d.; 200 Anglo-Brazilian, 5s.; 100 Gawton, 20s. 6d.; 125 Merliyn, 1s. 6d.; 50 Wheal Unity, 6s. 6d.; 50 West Wheal Vor; 100 Bedol-Aur; 100 Sovereign (Gold), 5s. BUYER of 5 Minera, £280; 30 East Devon, 5s.; 50 East Rosewarne, £2⅝; 15 Great Wheal Vor, £33; 50 North Treskerby; 40 Chiverton Valley; 2 South Caradon

GEORGE MOORE,
1, CROWN COURT, THREADNEEDLE STREET.

In any business that George Moore is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

20 Bryntail.	20 Grylls Wheal Florence.	30 St. Just Consols, 7s. 6d.
30 Bedol-Aur.	20 Great Retallack.	10 St. John del Rey.
3 Basset and Grylls, £9.	20 Hallenbeagle, £3¼.	2 Stray Park, £29½.
1 Basset.	20 Hingston Down.	10 Sithney Carn., £6s 8 9d
1 Buller.	50 Linares.	100 St. David's Gold.
5 Cornish Clay (an offer wanted).	20 Merliyn, 1s.	20 Sparnon, 10s.
1 Condurrow, £82.	30 Mineral Bottom.	1 Trelawny, £20⅞.
25 Carn Camborne, 19s.	10 Marke Valley, £4⅞.	20 Treweatha, 18s., call pd.
10 Clifford Amalgamated, £36¼.	50 Mariquita, 12s. 6d.	50 Untd. Mexican, £6¼.
5 Cwm Erfin, £28½.	1 Nangiles, £30½.	50 Vale of Towy, 5s.6d.
1 Carn Brea, £58.	1 North Roskear, £20.	3 Vigra and Clogau.
1 Caradon Consols, £10.	20 No. Treskerby, £2 17 6d	20 West Wheal Vor.
50 Crenver Abraham.	30 Nant-y-Iago, 8s. 9d.	30 Wheal Hartley, 14s. 6d.
5 Chiverton Valley, £5.	5 New Rosewarne, £10½.	5 Wheal Hope.
20 Camborne Vean, £2 16 9	20 No. Minera preference, 7s	1 W. Chiverton, £70.
50 Dale, 9s. 9d.	30 New Martha, 26s. 9d.	1 Wheal Seton, £231.
50 Don Pedro, 12s. 9d.	20 North Basset, £2.	50 Welsh Gold.
10 East Carn Brea, £8 3s 9d	5 North Buller, £3.	5 West Stray Park.
10 East Russell, £4 2s. 6d.	20 North Shepherds, £5.	1 West Tolgus, £56.
5 East Lovell, £17.	10 North Crofty, £4 11s. 3d.	1 West Sharp Tor.
5 East Providence.	20 North Chiverton, £2 3 9	1 W. Caradon, £16¼.
20 East Great Work, £2.	10 North Pool.	20 Wh. Grenville, £7 8 9d
10 East Grenville, £4 7s 6d	20 New Wh. Rose, 14s. 9d.	10 West Condurrow, 6s. 9d
5 East Vor, £5.	10 North Rosewarne.	1 West Frances.
30 East del Rey, 12s. 6d.	20 North Golch Hill, 22s 6d	20 Wheal Hearle, 7s. 9d.
3 East Caradon, £29¼.	10 No. Great Work, 17s. 6d.	20 Wheal Edward, 25s. 9d.
15 East Rosewarne, £3.	10 Pentre Lygan (an offer wanted).	1 Wh. Mary Ann, £11⅞.
5 Gt. Wh. Vor, £33½.	5 Prosper United, £5½.	10 Wentworth, £15.
10 Great Busy, £3⅝.	5 Polbreen, £14¾.	1 Wheal Rose, £45.
2 Great Fortune, £14 8s 9d	100 Port Phillip, 26s. 9d.	1 West Seton, £175.
20 Great Devon & Bedford.	50 Quebrada (£4 10s. paid), £3 15s.	30 Wheal Pollard.
5 Great No. Downs, £6⅜.	5 Pendeen, £5.	10 Wheal Ludcott, £2½.
10 Grylls Consols, £5.	50 Rialton East Wheal Rose, £1 15s.	1 Wheal Margaret, £11⅞
5 Gonamena.	30 So. Carn Brea, 15s.	100 Worthing, 18s. 6d.
1 Grambier, £8½.	100 Santa Barbara, 10s.	10 Wheal Crebor, 45s. 6d.
5 Garlidna, £1.	20 Sovereign Gold.	10 Wheal Agar, £3⅞.
50 Gt. Nor. Copper, 1s.	10 South Condurrow.	5 Wheal Uny, £6.
10 Glasgow Caradon, £3¾.	1 St. Ives Consols, £29.	20 Wheal Unity.
10 Great East Lovell, £5½.	20 St. Day United, 32s.	20 Wheal Harriett.
5 Great Laxey, £14½.	12 St. Just United, £2 6 9.	5 Wendron Consols, £3½.
30 Garreg, 1s.		50 Worvas Downs.
		50 Yudanamutana, £3.

And is a BUYER of 5 Clifford, £35½; 500 Vale of Towy, 5s.; 30 Hingston Down, £4 2s. 6d.; 30 East Grenville, £4¼; 20 Bryntail; 10 Hallenbeagle, £5 1s. 3d.; and 300 Wheal Hearle, 3s. 3d.
2, Adam's-court, Old Broad-street, June 10, 1864.

MESSRS. VIVIAN AND REYNOLDS, 37, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS of MINES, COMMISSION, and GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, and EVERY OTHER DESCRIPTION of STOCK.

Commission on sharetransactions 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

East Wheal Vor.—Judging from the reports received from practical agents respecting East Wheal Vor Mine, we beg to draw the attention of our friends to the property, and we have no hesitation in recommending it as a first-class investment at present market price of £5 to £6 per share. The mine is situated in the immediate neighbourhood of the prosperous Great Wheal Vor Mine, and offers more than ordinary chances of success. The Metal lode, which is now yielding such riches in Great Vor, has been found in East Vor sett, and is producing rich tinstuff, estimated at 60 per cent. There is in hand at present an available working capital of £6000.

MR. EDWARD COOKE, MINING SHAREBROKER, 75, OLD BROAD STREET, LONDON, E.C. Reliable information given on application, relative to the merits of mines, either for speculation or investment.

Mr. Edward Cooke having visited East Lovell Mine will be very happy to afford reliable information relative to the same.

June 10, 1864. Bankers: Alliance Bank, Lothbury.

MR. GEORGE BATTERS strongly recommends his friends to buy Tincroft, West Chiverton, Chiverton, Herodsfoot, South Caradon, Devon Great Consols, Great Wheal Vor, Chiverton Valley, Prosper United, Wentworth Consols, and Sithney Wheal Metal for investment. These shares will pay good interest for money at present quotations.—76, Old Broad-street, E.C.

WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.
Commission, 1¼ per cent. on all transactions.

RICHARD CLIFT, MINE SHAREDEALER, late of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all letters are to be addressed.

MR. WALTER TREGELLAS, STOCK AND SHAREBROKER, 12, ST. MICHAEL'S ALLEY, CORNHILL, LONDON, E.C.

Mr. Tregellas has FOR SALE 100 shares in the Buenos Ayres Great Southern Railway Company (£13 paid), at 1 dis.

THOMAS HAMILTON (late of Truro), STOCK AND SHAREBROKER,
4, AUSTINFRIARS, OLD BROAD STREET, LONDON, E.C.
Mine shares bought and sold on the usual commission.

KING AND CO., MINING AND SHAREBROKERS, ELDON CHAMBERS, LIVERPOOL.

JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C.

FOR SALE:—

15 Marke Valley, £5⅛.	10 East Lovell, £18.	5 Great Vor, £34.
20 East Carn Brea, £8.	5 West Chiverton, £72.	5 West Tolgus, £55.
50 East Grenville, £4¼.	10 Hallenbeagle.	50 Great Retallack, 6s.
25 Grenville, £7¾.	50 Crebor, 45s.	50 Unity, 7s.

Mr. Hume's Circular for June 9 is now ready. Special reports on East Carn Brea, East Grenville, &c., with remarks on many of the leading market mines. Price 6d.; subscription, 5s. per annum.

East Lovell.—Why do these shares fall in price? For the credit of market recommendations they should not recede. The public are responsible; they require dealers to "prophesy smooth things." This has been done; therefore, they should support their favourite through good and through evil report, keep their shares for investment, and, as the mine fails, increase their interest. That is true, courageous mining. Pundits on the mine, and on everything animate and inanimate connected therewith, are exhausted; but we have still the reports, and creditable ones, too. Many mines languish for lack of such reports.—Bankers: London Joint-Stock Bank.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has BUSINESS to TRANSACT, at close market prices, in—

Birch Tor & Vitifer, £2⅛	Great Fortune, £14.	North Downs, £2 1s. 3d.
Clifford, £35⅛.	Great Devon & Bedford.	North Treskerby, £2¾.
Chiverton, £11.	Great No. Downs, £6⅜.	Stray Park, £32¼.
Chiverton Moor, £4¾.	Great East Lovell.	St. Day United, 32s. 6d.
East Russell, £4⅛.	Great Laxey, £14¾.	Sithney Carnmeal, £7¼.
East Lovell, £17⅛.	Gawton, 17s. 6d.	West Wheal Vor, £33¾.
East Grenville, £4⅝.	Hallenbeagle, £5 3s. 9d.	West Chiverton, £67½.
East Caradon, £29.	Herodsfoot, £29¼.	Wheal Grenville, £7 18 9
East Rosewarne, £2⅞.	Hingston, £3⅞.	Wheal Edward, 22s. 6d.
Great Wh. Vor, £35.	Marke Valley, £4⅞.	Wheal Rose, £45.
Great Busy, £3¾.	Nangiles, £29¾.	Wheal Crebor, £3¼.

And is a BUYER of—

East Carn Brea, £8.	Glasgow Caradon, £3⅝.	Wheal Uny, £5⅞.

T. Rosewarne should be consulted immediately respecting East Lovell, Great East Lovell, the Grylls Mines, East and Wheal Grenville.

June 10, 1864. Bankers: Bank of London.

MR. J. P. ENDEAN, STOCK AND SHAREBROKER, 1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.

Having had 25 years' experience in the mining districts of Devon and Cornwall, and three in the London market, with daily information of important changes from qualified agents, also the most authentic reports relating to other investments, he is in a position to afford the earliest information to his clients, and to direct capitalists whether to buy or sell in mines, railways, or other securities.

Investors should apply to him for reliable information relative to the Chiverton Mines, also the Camborne and Illogan districts.

A carefully selected list of sound progressive and dividend shares (certain to give a large percentage immediately) forwarded on receipt of 5s. in stamps.

Orders and telegrams receive immediate attention.

MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER,
2, PINNER'S COURT, OLD BROAD STREET, LONDON.

Mr. T. E. W. Thomas strongly recommends the purchase of Wheal Grenville shares at present rates.

MR. FRANCIS G. LANE, No. 2, ROYAL EXCHANGE, LONDON, E.C., has the following SHARES FOR SALE:—

50 Yudanamutana, £3 19s.	20 Wheal Grenville, £7¾.	50 East Russell, £4⅛.
25 Hallenbeagle, £5¼.	50 Wheal Crebor, 45s. 6d.	50 Wheal Edward, 25s.
100 West Condurrow, 2s.	20 Sithney Carnmeal, £6¾	50 St. Just Consols.
100 Hawkmoor, 5s.	30 St. Just United, £3.	10 Wh. Chiverton, £11¼.
50 Dale, 10s. 6d.	25 Carn Camborne, 20s. 6dr	

Parties of respectability can have transfers registered into their names previous to payment. Bankers: London and County Bank.

MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.
BUSINESS TRANSACTED in BRITISH and FOREIGN STOCKS and SHARES.
Terms, 1¼ per cent. Bankers: London and Westminster Bank.

MR. H. WADDINGTON, MINING AND SHAREBROKER, 20, THROGMORTON STREET, LONDON, E.C.
Shares in railways, mines, &c., bought and sold on the usual commission.

JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C.
SHARES in MINES BOUGHT and SOLD on commission, at 1¼ per cent., for immediate cash. Bankers: London and Westminster, Lothbury.

MESSRS. ROBERTS AND CO., 31, NEW BROAD STREET, E.C., have selected a LIST of DIVIDEND and PROGRESSIVE MINES which they can strongly recommend. Also, Bank, Railway, and other shares.
Commission, 1¼ per cent.
Office of Roberts and Co.'s "Price List, and Stock and Share Reporter," price 3d.

WILLIAM ALLISON, STOCK, SHARE, AND MINING BROKER, 29, AUSTINFRIARS, LONDON, E.C.
Orders to buy or sell, accompanied by references, punctually attended to.

MR. J. W. GILBERT, MINE SHAREBROKER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON.

JOSEPH GREGORY, STOCK AND SHAREBROKER, 2, HATTON COURT, THREADNEEDLE STREET, LONDON, E.C.
Commission on purchase and sale of mining shares, 1¼ per cent.
Bankers: City Bank.

MR. J. H. COCK (late of Redruth), STOCK AND MINE SHAREBROKER, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
J. H. Cock, having had 12 years' experience in the mining market at Redruth, is in a position to give sound advice to those about to buy or sell mining property.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

WILLIAM BARTLETT, STOCK AND SHAREBROKER, MINING EXCHANGE, and No. 2, BUCKLERSBURY, LONDON, E.C.
Advice given as to the safest and best paying investments.
Bankers: Alliance Bank.

MATTHEW GREENE, SHAREBROKER, 27, AUSTINFRIARS, LONDON, E.C., has SPECIAL BUSINESS in the FOLLOWING SHARES, at the quotations annexed:—

5 East Caradon, £29.	10 East Grenville, £4⅛.	10 East Russell, £4⅛.
5 Great Laxey, £14½.	50 Great Retallack, 5s. 6d.	10 East Lovell, £17⅛.
50 East Rosewarne, £3.	20 St. Just United, £2⅜.	5 West Tolgus.
50 Crebor, 45s.	28 Tolvadden, 30s.	

Commission, 1¼ per cent.

MR. WILLIAM WARD (late with Messrs. Dunsford and Ranken), SHAREBROKER, 29, THREADNEEDLE STREET, LONDON, E.C., transacts business in British and Foreign Mine Shares, and other securities, at the closest prices, but not being a dealer only executes orders entrusted to him. Telegrams to buy or sell for cash or the fortnightly settlements promptly attended to.

In any business that W. Ward is favoured with, in which he is the buyer, he will give cash on receipt of transfer.

Commission, 1¼ per cent. on all transactions.
Bankers: City Bank.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., pays particular attention to British Lead, Copper, and Tin Mines, for which he solicits orders to sell or buy, at nett prices.

FOR SALE:—20 East Russell, £4¾; 10 Sithney and Carnmeal, £8; 10 Billins, £13; 50 Vale of Towy; 50 Prince of Wales (tin), 4s. 6d.; 25 Chiverton Valley.

BUYER of Central Miners. State number and lowest price.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREBROKERS, 2, ADAM'S COURT, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C. (Established Eleven Years.)

TRANSACT BUSINESS in BRITISH AND FOREIGN MINING SHARES and OTHER SECURITIES at closest prices, nett or on commission, but not being DEALERS only execute orders confided to them.

Telegraphic messages to buy or sell shares of every description promptly executed for immediate cash, or the fortnightly settlements.

Commission, 1¼ per cent. on all transactions.

June 10, 1864. Bankers: London and Westminster, Lothbury.

INVESTMENTS FOR CAPITAL.
Paying 10 to 20 per cent. per annum in bi-monthly and quarterly dividends.
SHARP'S RAILWAY, BANKING, MINING, AND INVESTMENT CIRCULAR (Gratis and post free)

Should be CONSULTED by the PUBLIC before INVESTING. It contains reliable information and advice to capitalists. Reports on Mines, Railways, Banks, Insurance, Docks, Loans, and all Financial Companies, &c., Record of Market Prices, and is the only SAFE GUIDE for the Investment of Capital.
HENRY GOULD SHARP, 32, POULTRY, LONDON, E.C. Established 12 years.

A MECHANICAL ENGINEER, of long practical experience, DESIRES an ENGAGEMENT, where thorough knowledge of every branch of his profession would be appreciated. Immediate employment would be of greater consideration than the commencing salary.—Address, "N. Z.," Mining Journal office, 26, Fleet-street, London, E.C.

WANTED, a PARTY in CORNWALL to PURCHASE COPPER ORES, at the TICKETINGS, or OTHERWISE. One who can do the business well would find this worth attention.—Address, "Box 8 2," Post-office, Manchester.

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JOHN REYNOLDS, Broker to the Company.
9A, St. Paul's-road, Camden-square, London, June 10, 1864.

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HALSE'S WEEKLY MINING AND SHARE CIRCULAR.—No. 15 will be ready on Monday. Those parties who may wish to have it regularly mailed to them for a quarter are requested to send 13 stamps to Mr. Halse, 28, Threadneedle-street. No charge made for the Circular.

Original Correspondence.

SOUTH YORKSHIRE STRIKE AND LOCK-OUT.

SIR,—In last week's Journal, in your local correspondent's Report from Derbyshire, Yorkshire, and Lancashire relative to the Coal Trade, it is stated that "The South Yorkshire men are exasperated at the statement which has been published by the masters, and the difference is all the stronger by the statement which has been put forth by the working colliers, which disproves much which has been published by the masters, and shows that their earnings have not been as much per day as has been represented."

To prevent any misapprehension about the statement so published by the masters, I enclose a copy of the letter written by the three gentlemen who examined into the wages paid at the Oaks Colliery, now on strike, and which fully explains to what extent the original statement was incorrect.

I shall feel obliged by your inserting the letter in next week's Journal.

Barnsley, June 9. W. H. PEACOCK,
Secretary to the Coalmasters' Association.

TO MR. W. H. PEACOCK, SECRETARY TO THE COALMASTERS' ASSOCIATION.

SIR,—The accuracy of our published statement of wages paid to the colliers at the Oaks Pit having been objected to by the colliers, we arranged with the proprietors for the re-investigation of the entire question in the presence of their clerk and stewards and of the representatives of the colliers. The examination having resulted in a modification of our previous statement, we think it our duty to put you in immediate possession of the facts, with a view to their publicity.

We now find it to be satisfactorily established that there are 22 hurriers more than we were informed of—(we now allow 153 hurriers, at 3s. 4d. per day, of all ages and descriptions)—the amount of whose wages, deducted from the earnings of the colliers, reduces the wages of the latter from 5s. 1½d. to to 4s. 6½d. per day.

We may add the colliers claim to have worked the whole 62 days the pit was working, which would, if established, constitute a further reduction; but we are satisfied that 56¼ days constitute a fair basis of calculation both for masters and men.

You are aware our statement was founded upon a careful examination of the books, which contained no record of the wages of the hurriers, these being paid by the colliers, and we had to obtain our information respecting their numbers and remuneration from the officers of the pit. We beg to bear our testimony to the promptitude and candour of Mr. Johnson, the managing clerk, and of the stewards of the Oaks Pit, during the course of this investigation; and it is with equal pleasure that we express our satisfaction with the conduct of the men forming the deputation. We have only to add our hopes that this painful struggle may be brought to a speedy and satisfactory conclusion.

THOMAS EDWARD TAYLOR.
MICHAEL THOMAS SADLER.
Barnsley, May 26. RICHARD INNS.

RECENT COAL-CUTTING PATENTS.

SIR,—I have read with much interest the letter on recent coal-cutting patents in last week's Journal, signed "The West Ardsley Company," and as some of the statements put forth in their letter require modification before they can be put down as facts, I should esteem it a favour if you would allow me space in the Journal for the following remarks thereon.

The writer assumes that your Northumberland and Durham Correspondent framed his report in the Journal of May 20 accidentally, in reference to the Broomhill and Hetton cutters, but how far his statement is correct is best known to your correspondent himself. I can assure your readers that, so far as it concerns the Broomhill machine, the report is strictly true; but I admit that the report will require a little modification with regard to the Hetton machine; but the explanation given by the "West Ardsley Company" of the originality of the Hetton machine is correct, so far as it was convenient for them to make at present, under the circumstances they are placed in with regard to the Hetton machine. The true account of the originality of the Hetton machine is this:—On March 30, 1861, Mr. Rothery, of Ardsley, and myself, took out a patent, No. 795, for a machine to work coal and other mines. The machine was made in Wakefield, at the works of Messrs. Howdon and Co., engineers, and, when completed, arrangements were made with the "West Ardsley Company" to try the machine in their colliery at West Ardsley; and, soon after several effective trials had been made, arrangements were come to with Mr. Firth and Mr. Donisthorpe, of Leeds, for them to take an interest in the patent, and on Nov. 26, 1861, myself, Mr. Firth, and Mr. Donisthorpe applied for Letters Patent for improvements in coal-cutting machines. The number of the patent is 2977: now, this is the patent which the West Ardsley Company call their patent, for they say in their letter, paragraph 2—"On Nov. 26, 1861, we took out a patent for the compressed air-engine machinery;" and, again, in paragraph 4, they say—"The Hetton machine is our property, and made at these works, under our patent of Nov., 1861;" and as I am in no way connected with the West Ardsley Company, or ever was, it follows that their statement is incorrect, and in all respects calculated to mislead the public as to the real proprietors of the patent, for they distinctly say that on Nov. 26, 1861, they took out a patent for the compressed air-engine machine, whereas it can be proved that this patent was taken out by myself, Mr. Firth, and Mr. Donisthorpe; but even this machine is only a slight modification of the patent granted to Mr. Rothery and myself, for the specification of Ridley, Firth, and Donisthorpe's patent of Nov. 26 relies in all material points on the specification of Ridley and Rothery's patent of March, 1861, which will be easily understood on referring to the Blue Book. Consequently, the Hetton machine is not the property of the West Ardsley Company absolutely, but the joint property of myself, Mr. Firth, and Mr. Donisthorpe, subject to an arrangement with Mr. Rothery; and I may further state that the Hetton machine was made absolutely under my instructions, and in accordance with the specification of the patent of Nov. 26, 1861.

There is another remark made by the writer of the West Ardsley Company's letter which is worthy of a *special* notice; and it is at least some consolation to myself and co-patentees, as the remark may be safely relied upon as true, that it will go far to prove there is at least one coal-cutter at work which is not the property of the West Ardsley Company; for, inasmuch as in striving to correct your Northumberland and Durham Correspondent's report of the Broomhill machine, they say, in paragraph 4, *this machine is not theirs*, but the Hetton machine is their property. Now, this is a very important acknowledgment of the West Ardsley Company in reference to the Broomhill machine, as it is only very recently indeed that they made a most determined claim to the Broomhill machine, as well as to the Hetton machine; and actually petitioned the High Court of Chancery to restrain myself and co-patentees from manufacturing our machines. But, however, these proceedings were soon disposed of by His Honour the Master of the Rolls, and, I have no doubt, to the great discomfort of the West Ardsley Company; and this is very probably the reason why they complain of the curious state of the Patent Laws of England.

South-street, Finsbury, June 9. ROBERT RIDLEY.

RECENT PATENTS FOR COAL-CUTTING MACHINES.

SIR,—Taking a great interest in the new inventions of the different coal-cutting machines, I have perused the different articles written about them in your Journal with great pleasure, and think it is very advantageous for the colliery proprietors that there is a dispute about the invention in existence, by which the public can alone learn which machine will be the most successful and most profitable one for the collieries; and as one article mentioned that "fair play is a jewel," I think it proper that every one who has ever had the opportunity to see, or what is better to work with, the two different machines now principally in question, should give his report. Whichever of these two machines may get the preference, it will be alike profitable to the real inventor, as anyone who has taken an interest in the matter will know that the credit of the invention of both machines belongs to Mr. R. Ridley, of Leeds, of which anyone may easily be convinced by getting the specification from the Patent Office.

The only difference is that the second invention, patented Nov. 26, 1861, No. 2977, was taken out by "George Edmund Donisthorpe and William Firth, of Leeds, in the county of York, merchants, and Robert Ridley, of Leeds, aforesaid, engineer," and the third, of June 8, 1863, No. 1420, by "James Grafton Jones, of Cumming-street, Pentonville, in the county of Middlesex, and Robert Ridley, of Leeds, in the county of York." which plainly shows that Mr. Ridley is one of the patentees of both inventions; and that, in fact, the West Ardsley Company have never had granted to them Her Majesty's Letters Patent for coal-cutting machines, and that the West Ardsley Company, although they mentioned that "fair play is a jewel," did not make use of this pretty proverb as they ought to have done if they would be treated on the same principle.

The Correspondent of Northumberland and Durham, in the Journal of May 28, in fact, has made a mistake in the two last lines of his report, as it seems by it that the same machine of Messrs. Ridley and Jones, patented June 8, 1863, is also in work or use at the Hetton Colliery; as, in reality, this is the machine of Messrs. Donisthorpe, Firth, and Ridley, patented Nov. 26, 1861. But as both inventions partly belong to Mr. Ridley, such mistake may easily have occurred; but, nevertheless, it is more correct and fairer play that the credit should be given to those parties to whom it belongs. The main point is, that both the machines which are now practically in work (to dispute about the other embryos is useless before they have made their appearance before the public) are of the most simple construction, and do their work in such a manner that everyone must be astonished and convinced that this invention is most useful, and worthy to be introduced with all dispatch, and that it is a pity that the utility of these inventions has been partially lost for nearly a year, by both parties cautioning the colliery proprietors against using any machines the construction of which will constitute, it is said, an infringement of the advertised two different machines, patented as above mentioned, and of both of which Mr. Ridley is virtually the inventor. Whoever has worked with both the machines, or has only seen both the machines in work, must confess, if "fair play is a jewel," that the last improvement of Messrs. Jones and Ridley is very considerable on the machine patented by Messrs. Donisthorpe, Firth, and Ridley, which is erroneously always mentioned and advertised as the "West Ardsley Company's Patent," inasmuch as there is no record of a patent in the Patent Office in this name referring to coal-cutting machines. One great advantage of the machine of Messrs. Jones and Ridley is, that in consequence of its shortness it is much easier to move from place to place, both backward, forward, and round the bends and sharp turns of the mine; and another advantage is, that it possesses more strength and stability; and it is evident that it must do at least as much work in the same time as the machine of Messrs. Donisthorpe, Firth, and Ridley, and even more, as the blow seems to me to be far more effective.

No colliery proprietor should lose any more time in making use of these machines, as he will soon find a great advantage by getting more work done, and by getting a much better quality of coal, as not so much coal will be wasted by these machines as hitherto by hand labour.

As regards the statement that the advertisers will take legal proceedings against all parties who may make use of any machines in the construction of which any infringement is made, I think no one need to be afraid to use either one or the other above-mentioned patent machines, as Mr. Ridley is one of the patentees of both, and it can be scarcely expected that Mr. Ridley will act against his own interest. This caution can only apply to those who use machines of which the inventor is not Mr. Ridley, who, if desired, could, I have no doubt, even supply the first machine, patented March 30, 1861, by Robert Ridley and Joseph Rothery, and which ought to be called the mother of all the new improvements about which so much dispute exists. The West Ardsley Colliery Company complains about the curious state of the patent law in England; but, as far as this goes, I think everyone who has read the judgment of the trial of April 13, 1864, Firth and others *v.* Ridley and another, must agree with me that the West Ardsley Company has no right to complain about the patent law, but about themselves, for not having had proper agreements, which could be enforced by the Court, and I think myself that the Court acted upon the proverb "Fair play is a jewel," and I am astonished that the West Ardsley Company, who seem to wish to be treated on this principle, are not content with the judgment.—*June* 9. J. A. D. HEIDTMANN.

COAL-CUTTING MACHINERY.

SIR,—It is much to be regretted that there should be any dispute between the several claimants to the invention of the coal-cutting machine, which is one of the most useful appliances connected with mining that has been introduced for some time; but as the dispute has arisen, would not the most speedy way of settling it be to announce the fact that there is no novelty whatever in any of the machines? I think that both the West Ardsley Colliery Company, and Messrs. Ridley and Jones, will admit that the application of the pick is not new, and that almost every conceivable mode of working it has likewise been proposed and published. The sole difference between the West Ardsley and the Ridley and Jones machine appears to be that the one is worked with an ordinary, or an oscillating cylinder, and that the other is worked with a trunk engine. It matters little, practically, whether the one or the other is used, but it seems that neither are sufficiently near perfection to command success, for I find that Messrs. Ridley and Jones now propose to employ electricity as a substitute for both.

It cannot be doubted that electricity could be more readily applied in a contracted situation than any other power, but its cost would be enormous; and if compressed air cannot be obtained, in a position where coal is so abundant as at a coal mine, at a price which shall render it more economic than any other motor, I fear that there is but little chance of coal-cutting machinery being generally introduced. I believe, however, that there is nothing to prevent the successful use of compressed air, and, therefore, look forward to the time when the machine will be used in every colliery.

Barnsley, June 6. COAL.

EXPLOSION OF GUN-COTTON.

SIR,—I see in the newspapers that a terrible explosion of gun-cotton, accompanied by loss of life, has lately occurred in the works of Messrs. Prentice and Co. It is supposed to have been caused by a spark from some steel machinery. Photographers will remember that a year or so ago the photographic chemist Dornbach lost his life by an explosion of gun-cotton while packing this substance into a cask by means of a wooden pole. Since that sad occurrence I have already twice stated that the explosion which killed Mr. Léon Dornbach was evidently caused by an electric spark. Persons who handle gun-cotton are apt to forget (or, perhaps, are not always aware) that it is one of the most electrical substances known, and that friction, far too slight to develope heat enough to inflame it, will develope in gun-cotton so considerable an electric tension that electric sparks may be obtained from it. T. L. PHIPSON, Ph.D., F.C.S., &c.

TAMPING WITH IRON RODS.

SIR,—In referring to this subject in last week's Journal, Mr. Stephen Barker appears to consider that the fixing of a copper head to a tamping rod presents such unusual difficulty that it is extremely rare that a good rod can be obtained. Now, I cannot see any difficulty whatever in affixing the head in such a way that it could not possibly be removed without positive breakage. All that can be necessary is to turn a female screw in the end of the iron bar, and a male screw to take into it on the copper head; the two would be screwed together, and a small quantity of molten metal run in to braze the joint. With a joint so made I believe that it would be almost impossible for a breakage to occur, and I think it would be found that the rods could be supplied at the same price as iron, and that the work could be done as fast as with an all iron rod.

It would be interesting to the readers of the Journal if Mr. Barker would state the relative prices of all iron and of copper-tipped rods, and also, if he can ascertain the fact, the difference of time occupied in tamping with the two descriptions of bars. As to the oak tamping bar, I fear that it would always be found too light and soft to become an efficient substitute for iron. Let all who are desirous of securing safety to the working miner turn their attention to the introduction of the copper-tipped tamping rod, and I am sure that accidents from premature explosions in tamping will never be heard of.—*June* 7. G. H. D.

IMPROVEMENTS IN UNWATERING MINES.

SIR,—There are probably but few operations connected with mining more difficult and costly than the pumping of water, and, consequently, as I observed that Mr. Edward Jones, of Gorton, near Manchester, had patented an invention with the very attractive title of Pumping Apparatus for Mines, I have carefully examined his specification, but fear that his prospects of success are not so good as could be wished. He says that his invention is particularly applicable in pumping water out of mines, and it consists in the application of two series of pipes for conveying the water from the bottom to the top of the mine; these two series of pipes are connected to the force-pumps in such wise that the columns of water in each series of pipes are alternately assisting each other in raising the water from the bottom of the mine. In carrying out his invention the steam or other power is applied to give reciprocating motion to a rod on which three pistons are fixed; these pistons work in suitable cylinders or barrels, the centre one is an equilibrium cylinder, and the upper and lower ones are the working barrels. The equilibrium cylinder is in communication with the two columns of water in the pipes above referred to, and the upper and lower working barrels are in communication with the said columns of water, and with the cistern or pit containing the water to be raised. When the pump is in operation the columns of water in each series of pipes counterbalance each other, and the pistons force a supply of water equal to the contents of each working barrel alternately into each of the series of pipes, or a single series of pipes divided by a partition to separate the columns of water may be employed.

The use of two series of pipes, in such a manner that the water in the one series should counterbalance that in the other, would undoubtedly be an enormous advantage, but no such counterbalance can be had where the water is to be raised. Every gallon of water raised must have a certain amount of power used, and if the construction of pumps be the same, there would be a disadvantage rather than otherwise in using two columns of pipes; thus, as Mr. Jones states, that both series of pipes are in communication (I presume in continuous communication) with the equilibrium cylinder, just as much water would be raised through one series as through both—*minus* an inappreciable loss from slightly increased friction. But when we come to the enormous useless expense for the second series of pipes, Mr. Jones's invention would be a positive disadvantage.

June 6. G. J. B.

HYDRAULIC MOTIVE-POWER.

SIR,—It appears to me that by far too much importance has been attached to the results obtained by Mr. Boutet in his experiments with his canal railway, which, so far as I can learn from the very vague data given in the article in the Journal of May 28, proves that he utilised comparatively little of the power of the water which he consumed in the experiment: thus, it is stated that, with an undershot-wheel, in a close drain, 12 inches diameter, 300 lbs. was drawn on a wagon, supported on 2-inch traction wheels. With such a wheel he had an effective leverage of 5 to 1, and if the wagon were mounted in the roughest manner, the traction would scarcely exceed 12 lbs.—that is, the load could be drawn (provided the incline did not exceed, say, 1 in 500), by a cord that would break with about a 12-lb. weight suspended to it; yet Mr. Boutet must have had a current of high velocity (for you say it rose 1½ inch in the wheel), a wide breast, and a good fall. Such statements as those contained in the article in question are apt to mislead the public, and lead an inventor to hope for results which it is mechanically impossible for him to obtain. No one is a greater friend to inventors than myself, but I think they should always be warned when they are acting upon erroneous principles, that they may be prevented from pursuing shadows, to their own prejudice.

If Mr. Boutet will state the pressure of water on the blades of the wheel, the amount of traction, &c., accurately (the vague figures in the article being useless for calculation, as the attempt to work upon them might give results very wide of truth, either in Mr. Boutet's favour, or more likely against him), he will find plenty of your readers ready to point out to him where he is in error, and thus give him the opportunity of remedying defects. As to Mr. Boutet's railway-brake, which you describe in the same Journal, it certainly appears a very efficient contrivance for stopping a train going one way, but it does not, from the description, seem to have the advantage of ordinary brakes in stopping the train whichever way it is going. Does Mr. Boutet propose to turn every carriage at the end of each journey, or how does he get over the difficulty? JAMES THOMPSON.

Dublin, June 6.

FORMATION OF MINERAL VEINS.

SIR,—Having of late read such abstruse theories as, for instance, of those who believe the Earth was ejected from the Sun, just as a spark would fly from a smith's anvil; and the Sun's influence, through the number of years which it has existed, having brought it to its present state of perfection; it is far more feasible to think that the Diving Being, to whom we owe our existence, created the Earth of its present density, and then gave it motion. The motion I mean in this case is the susceptibility things have of being altered—anything out of its element must decompose and disseminate the atoms of matter of which it is composed to their simple state. All organic substances are in one continuous motion, and all inorganic substance (out of their element) are decomposing by the principal destructive agent in nature (oxygen). Thus it is the whole universe is in one continuous motion. After substances have existed, and can no longer exist, in their present form, Nature brings all those atoms to their simple state to join others in the formation of a new substance. From this hypothesis I infer that mineral veins are formed; the water carrying those atoms which are congenial to it through the fissures of the earth, and continues to run until it meets with strata of ground impervious to it; there it meets with other waters carrying in solution that which has an affinity for it. Consequently, from a law in chemistry, that two bodies unite to form a third, distinct from either of the combining bodies, a precipitation takes place; the water runs on, and eventually, from the downward pressure, it forces up at a lower level, and forms those beautiful springs which are so beneficial to mankind.

Now, in deep sea soundings it is the general impression that it is owing to the under current we find no bottom, without knowing why the under current should exist. It appears to me that all submerged substances float at a certain depth for this reason. The superincumbent pressure of water, conjointly with the decreased attraction of gravity, renders the water in density equal to the submerged body, consequently it floats in equilibrium. If such is the case, we can easily account for those huge rocks rudely placed so far inland; and I believe it to be an established fact that the earth is continually changing its form. Hence it is those large stones were broken from the rock and floated until they found the acclivity of the land, where they might have been tumbled about by the action of the water, until the crust of the earth assumes another form, the water recedes and leaves them dry. No doubt the change which takes place within the crust of the earth is owing to the formation of substances. Why not, on the same principle that vegetable substances petrify, should not the beds of rivers, in which are embedded shell-fish, &c., petrify? then we could easily account for shells, &c., being found in rocks. I trust no one will be so presumptuous as to attempt to unfold the mysteries of this mysterious world, nor jump hastily at conclusions, before asking themselves the reason why.—*Liskeard, June* 2. E. J. H. BROAD.

TITANIFEROUS IRON AND STEEL.

SIR,—As renewed efforts are now being made to introduce titaniferous ores into the blast-furnace, to improve the quality of the resulting metal, it would be interesting to learn whether titanium has any beneficial effect upon the metal, owing to its admixture therewith, or whether it is simply because the titaniferous ores have the property of taking up the impurities, and so rendering the metal purer. It has been doubted by Dr. Percy and St. Claire-Deville whether an alloy of iron and titanium could exist at all, but, I think, more recent experimenters have proved the inaccuracy of such an opinion. Mr. Robert Mushet, for example, who has probably more experience with iron and steel in a single month than Dr. Percy in the entire course of his life, entertains precisely opposite views; and as even so great an authority as Dr. Wollaston regarded as metallic titanium that which many years after was discovered by Wöhler to be only a combined nitride and carbide of the metal, there is nothing unreasonable in supposing that the later experiments of Mushet may be taken in correction of Dr. Percy.

At first sight it may appear unimportant how the titanium acts, provided it be established that the effect of the addition is to improve the quality of the iron, but it should be considered that if the improvement be by the combination of the titanium with the iron the supply of the improver is comparatively limited and costly, rutile costing the English manufacturer about 10*l.* per ton, and ilmenite from 25*s.* to 30*s.*, whilst if the use of the titaniferous ore be simply to render the cinder less tough and ropy, and facilitate its separation from the metal, it is not unlikely that many substitutes for it may be found. Could not Mr. Robert Mushet enlighten the readers of the *Mining Journal* upon these points? He has told us that the excellency of the iron, wherever manufactured, is invariably, to a great extent, dependent upon the presence of a certain amount of oxide of titanium in the ores or materials employed in the manufacture.

Some interesting particulars relative to this subject were published some short time since by the Titanium Ore Company, of Birmingham, but, I think, they suggest a few enquiries which should be answered before the introduction of ilmenite should be regarded as indispensable. It is stated that Mr. Mushet's experiments, which have extended over a period of several years, have clearly demonstrated that wherever pure ores or oxides of titanium are properly employed in the manufacture of iron or steel the resulting products are possessed of a degree of tenacity, strength, and body, which cannot by any known means be otherwise obtained. Pig-iron has been smelted in a blast-furnace from a mixture of hematite iron ore and ilmenite (the most abundant ore of titanium), in the proportion of from 2½ parts to 10 parts of ilmenite to 100 parts of hematite iron ore. With 7½ parts of ilmenite the pig-iron produced has been simply puddled, and the puddle bar drawn sound and clear to ¼ inch, giving when tested a tensile strength of 44 tons per square inch. In steel manufactured with a suitable addition of titanium ore, the tensile strength obtained is even more remarkable than that of titanic iron, and the steel thus prepared bears a strain of from 10 to 20 tons, and in some instances even 30 tons per square inch beyond that sustained by other steel, whilst the manufacturer is enabled to produce a superior quality of steel for all purposes from materials of a much cheaper class than those ordinarily employed. Now, these statements are attractive enough no doubt, but to give them any practical utility it is necessary that the tensile strength of steel manufactured from the same ore and in the same way should also be known.

With regard to the use of titanium ores, we are told that they can be used in various ways, and it is said that when titanium ore or ilmenite is used in the blast-furnace from 2¼ to 7½ per cent. of that ore is required of the working ore burden of the furnace, according to the nature of the iron ores which are smelted, but generally 2½ per cent. of ilmenite is enough to effect a great and marked improvement in the quality of the iron produced; and this proportion can be used without in the slightest degree deranging or interfering with the regular working of the blast-furnace, and no change of routine is required in the management of the furnace. The titanium ore, when crushed or finely ground, can be most advantageously blown in at the orifices of the tuyeres, and when thus applied it will be found to effect an extraordinary improvement in the quality of all classes of pig-iron, from the commonest cinder iron to the finest hematite pig-iron. So far, we have simple statements, which must go for what they are worth, until the *relative* value of the same ore smelted with or without ilmenite is known. But it is then, declared that ilmenite can also be used as a felting for puddling-furnaces, for which it is far more durable than bull-dog, hematite iron ore, or magnetic iron ores; and one fettling of ilmenite will outlast three fettlings of the ordinary kinds which are commonly made use of. This, to me, is the most astounding announcement of any; for, to employ a material three times as infusible as bull-dog as a flux for improving iron seems

be me out of the question. It could only be satisfactorily used when reduced to fine powder, and the cost of so reducing it would, I fear, be so great as to preclude the possibility of economically using it. It may happen that these objections are readily answered, but I am sure they will have suggested themselves to so many that, unless they be proved groundless, the use of titaniferous ores will not soon become general in the manufacture of— IRON.

Wednesbury, June 6.

THE TURBINE AS A MOTIVE POWER.

SIR,—Observing your very favourable notice of the turbine, I may direct attention to a proposition to apply this very efficient machine as a motor. Mr. Edwd. Lloyd, of Dee Valley, near Corwen, claims an invention which relates, firstly, to wheels to be worked by water, and in which the water enters at the axis of the wheel, and then passes along a curved passage or along curved passages to the periphery; and this part of his invention consists in reversing the curve of the passages near the periphery of the wheel, so that the water will be discharged in the contrary direction to that of the ordinary wheel, having the curve of the passage or passages for water only in one direction. A valve is placed in each of the recurved passages, to regulate the quantity of the escaping fluid. Another part of his invention relates to rotary wheels, to be impelled by the pressure and elastic force of steam or other elastic fluids; and the object of this part of the invention is to obtain by reaction all, or nearly all, the power in the elastic fluid due to its pressure and expansion. It consists in obtaining the power from elastic fluids, by causing them to enter at the axis of a wheel, then to pass to the periphery of the wheel along a channel forming a curve, which is similar to the involute curve struck from a circular evolute placed at the axis of the wheel. This involute curved channel terminates against a curve which is a circle forming the periphery of the wheel; the curve of the passage or channel is then reversed or turned back, and one side of the remainder of the channel or passage is formed by the inside periphery of the wheel; while the other side of the passage or channel is formed by the outside of the involute curved channel from the axis of the wheel to its periphery, the passage finally terminating at a point half or three-fourths of the circle from the point of junction between the involute curve and the circle. The involute curved channel is about the same area from the axis of the wheel to the point at which it reverses, and the channel is the smallest at that point, and then gradually enlarges in area to where the elastic fluid escapes into the atmosphere. The elastic fluid reacts first at the reverse or turning back of the channel, and then, in expanding as it goes along the channel, reacts on the involute curved side of the channel. A valve is placed at about the junction of the involute curve and the circle to regulate the quantity of elastic fluid and vary the degree of expansion. The wheel is surrounded with a casing, which is open to the atmosphere, and is for the purpose of preventing condensation when high-pressure steam is used. If a vacuum is to be formed, then the casing is enclosed, and it is connected with suitable condensing apparatus, air-pumps, and other necessary parts for condensing steam and removing air and water.

The value of the turbine, as compared with every other description, has, I think, been fully established, and I recollect seeing a small turbine, not more than about 1 ft. in diameter, used at the International Exhibition of 1862 as a motor for driving the 12 heads of stamps for crushing the Port Phillip Company's gold quartz; but in all turbines hitherto constructed the great object has been to secure the escape of the water, without any check whatever. Now, Mr. Lloyd goes upon just upon the opposite principle, and particularly studies to spoil the smoothness of the flow, the natural consequence being that he gets one of the crudest turbines that can well be imagined—as a water turbine it would be totally useless. But, just as it is useless when water is used, so I can understand that with steam, for which he also proposes to apply it, it might prove very efficient, for it may happen that a fluid so very light as steam would be wasted in a turbine of ordinary construction, whilst with the turned back chambers its power would be utilised before the exit. It would be well if Mr. Lloyd would state the results he has obtained, if he desires his invention to be applied, for I must say that, from a description of it, the prospects of success appear to be very small, though he seems to have an idea capable of successful development. The advantage of a rotary engine, could it be readily obtained, is so well known, that if Mr. Lloyd can show the efficiency of the steam-turbine he would not fail to find supporters. I do not recollect the turbine having before been proposed as a rotary steam-engine, yet see nothing to prevent its use, provided it can be so arranged that there shall be no unnecessary loss of steam. It must be recollected that when water is used there is no expense in preparing it, whilst steam cannot be obtained without a large consumption of fuel. I fear that the use of any turbine yet constructed as a steam-engine will scarcely give better results than those obtained by— HERO OF ALEXANDRIA.

Corwen, June 6.

MINING ANOMALIES.

SIR,—The Mining Market at this time presents some striking anomalies as regards the market values of various mines. Thus we have—Wheal Grenville, market value about 51,000*l.*; East Grenville, about 33,000*l.* The former has made its last call, has ends worth nearly 300*l.* per fm., and will pay a dividend next meeting. The latter has about 3 fms. of ore ground in one level, worth (say) 40*l.* per fathom; and when that is said, all is said. It has no prospect but calls for years to come, and yet its market price stands at about two-thirds that of Wheal Grenville; while Nangiles, which nearly pays cost, and has rich courses of copper ore laid open, is at only 31,000*l.* for the mine, or 2000*l.* less than East Grenville, which latter has as yet only 3 fms. of productive ground opened. East Lovell, which has just paid a dividend of 10s. per share, and possessing ends worth about 500*l.*, is selling at 40,000*l.* for the mine; whilst East Carn Brea, which has never paid a dividend, and perhaps never will, stands at 51,000*l.* for the mine. Great Busy, with large reserves of copper, paying cost, and certain to enter the Dividend List on the least rise in copper, is selling at 21,000*l.*; whilst Hallenbeagle, an old mine under process of cleaning up, stands at about 28,000*l.* market value, though it has not yet sold a single ton of ore. Treloweth, with ends worth about 70*l.*, and with ore of rich quality, is nominally at 5000*l.* market value; whilst Great East Lovell, with nothing at all, is selling at about 10,000*l.* for the mine. After making every allowance for situation and future prospects, it still seems almost incredible that such paradoxes should daily occur in the mining market. OBSERVER.

June 6.

WEST CONDURROW MINE.

SIR,—Will you permit me, with your usual courtesy, to ask my fellow-adventurers in this mine if they think it desirable to continue operations for its further development, or if it would not be better, under all the circumstances, to wind-up the concern? "A Shareholder," in the Journal a few weeks ago, showed us that the mine was becoming poorer and poorer, and, consequently, calls increasing, and the sale of ore *nil*; and since then a report of Capt. Hoskins, on May 31, has been issued, and I think my fellow-shareholders will conclude that, from this report, there is but a poor chance of the mine turning out anything at present, if ever it does, and that the operations for its development, as conducted of late, have not been, according to his opinion, the most judicious, as he says he is "glad to see that they have suspended operations in the western part of the mine, and began working with more spirit in the eastern part."

We know full well that it quite suits the purpose of merchants, captains, pursers, &c., to continue operations so long as the shareholders are content to pay their bills and salaries; but I think the shareholders have had about enough of this, and with what result?—shares selling at 2*s.* each. I confess that, after having held shares in the mine for upwards of two years, and paid calls regularly—each share having cost me about 9*l.*—I am willing to consent to have the mine wound-up, rather than incur any further outlay on what appears to be at present a very unprofitable concern.

The mine has now been in operation about seven years, and Mr. Spargo, in his "Statistics and Observations," says—"It is to be feared that the ore ground in this mine is too scanty to make either large returns or profits;" but perhaps the mine is chiefly held by merchants, &c., as I requested the purser some time ago to furnish me with a list of the shareholders, to which I received no reply—a thing that looked rather awkward. If any quantity of the shares are held by independent adventurers, I hope they will lose no time in looking to their own interests, unless, indeed, they are willing to pay large bills and salaries, without much prospect of a return. H. HASTINGS, M.D.

Cheltenham, June 6.

[ADVERTISEMENT.]

WHEAL TREEBY MINING COMPANY.

SIR,—The report of the proceedings of the meeting of the adventurers in Wheal Treeby, held on May 27, furnished to you by Messrs. Peckham and Salt, and inserted in last week's Journal, being inaccurate, and otherwise calculated to mislead, I have to request an opportunity of publicly stating the facts in regard to the meeting referred to. First, I have to confirm the statements in the letter from Mr. Berry, which also appeared in the Journal of last Saturday. Secondly, I have to point out, as I did at the meeting on the 27th ult., that the neglect of Mr. Robins himself to enter the proceedings of a meeting in 1859 occasioned the misapprehension which arose at the meeting in March last; and that, instead of doing anything to dispel such misapprehension, Mr. Robins aggravated it by his own erroneous statements, and his evasive mode of treating the questions I put to him, with no other object than to get at the truth. I was Chairman of the meeting in 1859, which was hastily got through, after a very long meeting of the Wheal Emma adventurers; and finding, after it was over, that Mr. Robins had not fulfilled his duty as purser, by entering at the time its proceedings in the cost-book, I furnished him with my minutes thereof; and, although he had them printed, and sent printed copies of them to the adventurers, or some of the adventurers, he altogether omitted to put them in the cost-book, and they, consequently, were not there on March 18 last. Mr. Robins then said that a resolution for the repayment of money to the shareholders, and certain accounts, were passed at a meeting that was held in 1861, and that I was Chairman of it, and charged with omitting to make entries of it, as if that were my duty and not his own; and I positively asserted that there was no meeting in 1861, and that the accounts referred to had not been passed, and *such is the case;* and I further stated I had *no recollection* of any resolution for payment of money back, and did not believe there was any; and, if Mr. Robins felt aggrieved by his right or authority to repay not being admitted, he had only himself to blame, as I felt bound to go by the cost-book. Mr. Robins has yet to pay some, if not many, of the shareholders their proportion of the balance in hand in 1859, and it remains to be seen whether his anxiety about his character reaches to this extent.

I complain not only of the report of the last meeting, inserted in the Journal by Messrs. Peckham and Salt, but also of the report of the said meeting sent to the shareholders, the latter being, like the former, both contrary to the real state of things in material points, and calculated to convey a very incorrect idea of my views and of the course I pursued. Mr. Robins seems to think it very important to represent me as being a party to what I actually voted against, because he had not the manliness to be willing for it to be known that the oversight referred to in the resolution was his own, and not mine, as he maintained it to be till he was completely refuted with the clearest actual proof. I regret the necessity for this communication. W. P. PAULL.

Bank Chambers, Bedford-street, Plymouth, June 9.

GUN-COTTON.—Professor Abel, who has so carefully investigated the gun-cotton, thus sums up the peculiar properties of this explosive substance:—When inflamed, or raised to a temperature ranging between 137° and 150° centigrade, it burns with a bright flash and a large body of flame, unaccompanied by smoke, and leaves no appreciable residue. It is far more readily inflamed by powerful percussion than gunpowder; the compression of any particular portion of a mass of loose gun-cotton between rigid surfaces will prevent that part from burning when heat is applied. The products of combustion of gun-cotton redden litmus, and contain nitric oxide, hence they have a corrosive action on gun-metal. In the open air it may be inflamed, when in actual contact with gunpowder, without igniting the latter; in a confined space (as in a shell, or the barrel of a gun) the almost instantaneous rapidity of its explosion produces effects which are highly destructive, as compared with those of gunpowder, while the projectile force exerted by it is comparatively small. For these reasons Professor Abel—who is chemist to the War Department—does not think we are yet in a position to use gun-cotton as a substitute for powder.

Meetings of Public Companies.

ECONOMIC LIFE ASSURANCE SOCIETY.

An extraordinary general meeting of this society was held at Radley's Hotel, Bridge-street, Blackfriars, on Thursday,

Mr. H. BARNETT in the chair.

Mr. ALEXANDER MACDONALD (the secretary) having read the notice convening the meeting, the CHAIRMAN stated that it was called in consequence of a requisition signed as directed by their regulations, and was for the consideration of certain defined objects. When the question was mooted at the last meeting he said that there were certain clauses which would require to be altered to enable the suggestion to be carried out. It was provided in their original constitution that four of the directors should not be assured or otherwise beneficially interested in the society; and a similar rule applied to the three trustees. Circumstances had arisen which rendered it expedient that this should be altered, for they found that practically those beneficially interested in the society were most fit for the office of director. They were originally constituted as a combined proprietary and mutual society, but they were now mutual entirely, and the cause for the provision had ceased to exist. The changes proposed were more of form than anything else, and he would, therefore, ask the solicitor to read the amendments and substitutions proposed.

Mr. YOUNG (the solicitor) explained that the object of the provisions was to avoid certain difficulties which might otherwise have arisen, but in 1827 the directors obtained an Act of Parliament, enabling them to sue and be sued as a corporation, so that there were now no partnership difficulties existing. Their constitution provided that four of the directors should not be beneficially interested, and that seven should be assured to the extent of 2000*l.* each. The objects of the resolutions now proposed was to permit all to be assured; and also that the three trustees might be beneficially interested.

A POLICY HOLDER enquired whether the meeting was sufficiently numerous to pass these resolutions.—The CHAIRMAN said it was, the quorum being 20. There were more than twice that number present. The necessary resolutions were then passed.

The CHAIRMAN said that the next question referred to the investment of the funds of the society. It was expedient that they should make the most of their funds. Of late years securities had made their appearance which were unknown during the earlier existence of the society, and they were going to ask their authority to invest in other than parliamentary stock. They were going to ask them to adopt the same course as the Law Life, which it must be acknowledged was under the guidance of some of the greatest legal authorities in the kingdom. He believed they had taken a safe view, and they could not do better than adopt the same form.

Mr. YOUNG then read the resolution, the object of which was to sanction investments in rates and tolls, in railway debentures where dividends are being paid on the ordinary stock of the company issuing them, and in the guaranteed stock of railways in India.

The CHAIRMAN said that as regarded rates and tolls the Acts of Parliament authorising local boards to borrow money opened a field for safe investment at something more than the rate obtainable in the funds; it enabled them to get 4½ to 5 per cent. They had already done some business of this class under their power to borrow on mortgage. As to Indian securities, they were generally considered eligible investments of funds.

The increase of the remuneration to the directors being brought forward, it was proposed and seconded that the remuneration be increased from 1500*l.* to 2500*l.* per annum; whereupon Mr. GREGG, seconded by Mr. A. K. BARCLAY, proposed as an amendment that the increase should be to 3000*l.* per annum, urging that there was a revenue of more than 300,000*l.* per annum, as well as a reserve of nearly 3,000,000*l.*, which the directors had to deal with, and that in addition to the ordinary weekly board one director, in rotation, was daily in attendance. Some societies not so prosperous as their own were paying "not less than 5000*l.*" by their deed of settlement. The amendment was carried by nearly three to one.

Mr. HINTON proposed that the claims should be paid three months after proof of death, instead of six months. He was not an actuary, but calculating in his own way upon the last report, he found that it would only make a difference of 1100*l.* a-year to them, which would be compensated by the increase of business.

Mr. DOWNES (the actuary) explained, however, that the difference would be 1 per cent. upon 7,000,000*l.*; and that if the change were adopted, the next bonus would be reduced by 34,000*l.*, independent of interest. Their premiums were lower than any other office in London, and were calculated on the basis of payment six months after proof of death; whilst others were calculated on the basis of three months. In reply to policy holders, he stated that, during the existence of the society (more than forty years), only five complaints had been made of the six months elapsing. During the last five years they had had 794 claims, of which 324 were d scounted (for they paid the claim immediately after proof of death upon the payment of a small discount), and of those discounted, 51 only had been by relatives of deceased, the remainder being by assignees and others, where the probate was not passed. The average amount charged for the discounting was 15*s.* per cent., and the amount yielded to the society was about 1600*l.* in the five years. The motion "That the meeting was of opinion that the claims should be paid in three months, instead of six months after proof of death," was then put, and lost by 13 against 9.

Thanks were voted to the Chairman and directors, and the meeting separated.

GREAT WHEAL VOR UNITED MINING COMPANY.

The quarterly general meeting of shareholders will be held at the offices on Wednesday next. The profit and loss account for the three months, ending with the cost for March, shows—

Black tin sold, Feb. 13	£2864	1	3		
Ditto, March 14	3114	6	11		
Ditto, April 14	3070	4	7		
Half-year's rent of Trelissick, Lady-day, 1864	7	8	9		
Sundries, and cash balances	6	3	4	= £9062	4 10
Jan., Feb., and March mine cost	£3355	5	7		
Merchants' bills	1952	9	0		
Dues	485	8	3		
Sundry payments, including London expenses	219	8	9	= 6012	11 7
Leaving balance (nett profit)				£3049	13 3

The cash account, made up to the end of April, showed—Cash at bankers, petty cash, and bills receivable, 3521*l.* 15*s.* 1*d.* During the three months there were 70 fms. 1 ft. 8 in. of ground sunk and driven.

SORTRIDGE CONSOLS MINING COMPANY.

A general meeting of shareholders was held at the London Tavern, on Tuesday, Mr. W. A. THOMAS in the chair.

Mr. D. COHEN (the secretary) read the notice convening the meeting, and the minutes of the last were read and confirmed. A statement of accounts for six months, ending with cost for April, was submitted, from which the following is condensed:—

November mine cost, merchants' bills, &c.	£310	5	4		
December ditto	298	0	9		
January ditto	314	18	5		
February ditto	310	16	3		
March ditto	295	0	6		
April ditto	326	0	9		
Dues	26	2	7		
Income tax	6	17	0		
Balance of discount and interest	8	8	2		
Manager's salary	31	10	0		
Secretary's salary	63	0	0		
Printing, &c.	4	1	6		
Stationery, &c.	5	14	2	= £2000	15 5
Copper ore, sold December	£261	12	11		
Ditto, February	241	15	11		
Ditto, April	230	8	5		
Discount and deductions from merchants' bills	13	8	3	= 747	5 6
Balance, debit				£1253	9 11

The general balance-sheet showed a balance in favour of the mine of 104*l.* 16*s.* 11*d.*

The report of the manager (Capt. J. Richards) stated that good progress had been made in the driving of the 50 fm. level west of the ventilating shaft, nearly 40 fms. having been driven on the course of the lode, and the level has passed through the great cross-course, but without the desired result. The lode, however, assumes a favourable character, and should, in his opinion, have a much greater trial, by deepening the mine in this direction. No. 1 tin lode has, at the different levels opened out, had a fair trial, and its further development should be guided by its appearance when met with in the 86 fm. level cross-cut, where it would, he hoped and believed, show a considerable improvement. Upon an examination of the surface, a lode of good size shows itself in the River Walkham: its composition is capel, mundic, prian, gossan, and a little ore—very promising. To the north of this lode some 50 fathoms there is another lode, 5 ft. wide, lately opened upon in North Wheal Robert, which has a very fine appearance, being composed of capel, quartz, prian, mundic, and fine gossan, the latter containing some good ore. This most promising lode passes for some considerable length through this sett; but in order to work it properly, as also the one in the river, just referred to, the property of Lord Fortescue, to the south, should be added to the sett. The present 50 fm. level cross-cut south is already all but out to the south boundary, and as the elvan passes between the two latter lodes, and the main cross-course is to the east, he would recommend that an application be made to Lord Fortescue for a grant of his land, which can be tried at a very reasonable expense, by means of an adit level, to be taken up at or near the River Walkham, and by the continuation of Mayne's cross-cut, from the back of which a rise could be put up to surface, for the purpose of a shaft and for ventilation. The present machinery is quite sufficient to try these lodes to any extent; and if the above recommendations are carried out, judging from the promising nature of the south lodes, there is an excellent chance of their leading to good results. They calculated on sampling about 30 tons of ore bi-monthly, at a cost of about 300*l.* per month.

The CHAIRMAN having stated that he should be glad to afford any information that might be desired,—Mr. LATIMER said that as it had been stated in the *Mining Journal* a motion would be submitted at this meeting for the abandonment of the mine, he begged to ask the committee whether they had received any notice to that effect?—The SECRETARY said that in an anonymous "Notice to Correspondents" it was stated that such a motion would be submitted, but no notice had been sent to the committee.

Mr. LATIMER said if the gentleman who sent that notice to the Journal was now present, and would submit his proposition, he (Mr. Latimer) was quite prepared to support it; and if that gentleman were not present, he would propose it himself. He might mention that he would adopt that course with the view of eliciting from the committee their reasons why such a step should not be taken.

The CHAIRMAN said that it would be more in order were the accounts first submitted.

Mr. STRAKER then proposed that the accounts be passed and allowed, which was, seconded by Mr. WILKINSON, and put and carried.

Mr. LATIMER enquired the probable average price that would be realised by the 30 tons which Capt. Richards calculated would be sampled bi-monthly?—The SECRETARY thought about 6*l.* per ton, including cartage—or, in other words, the returns would realise about 150*l.* against a cost of 60*l.* During the past six months the returns had been 100*l.*, and the expenditure 300*l.* per month.

Mr. LATIMER proposed that in the opinion of the adventurers present Sortridge Consols has had a sufficient trial, and that this meeting be adjourned for the purpose of receiving from the committee of management a valuation of the machinery and other assets, and to report as to the most advantageous mode of dissolving the present company. He made this motion, in the first place, because, according to their own manager's calculations, there would be a loss at the rate of 240*l.* per annum; and, in the next place, because there never had yet been any prosperous mine in the Sortridge district proper. As to the extension of the sett, as proposed by Capt. Richards, that in his (Mr. Latimer's) opinion, was a confession of failure as to the main points to which the Chairman directed attention at the last meeting—the 50 fm. level west. The question of sinking deeper was the only one that ever had his (Mr. Latimer's) approbation, but that had been given up in consequence of the outlay it would incur. It appeared that the Sortridge district had never been tested in depth, so that the only reason which could induce shareholders to proceed with this adventure was the probability of finding another bunch of ore near the surface. Moreover, it appeared that the boundary was nearly reached at the 50 west, therefore their main consideration seemed to be the addition of the new ground to the south.

The SECRETARY explained that Mr. Latimer's statement as to the boundary being nearly reached at the 50 fm. level west was incorrect, for there were quite 300 fms. beyond the great cross-course yet to be explored before the befindary in that direction would be reached. He (the secretary) had always thought that the reason sinking was suspended was this—as the shaft had gone through about 50 fms. of dead ground, the 50 fm. level being the deepest that ever gave any ore, and as the sett comprised such a large extent of unexplored ground west, it was the opinion of Capt. Richards that this ground should be tried to see if a shallow bunch of ore could not there be found similar to that in the eastern portion of the sett.

A SHAREHOLDER said the question was, when would Capt. Richards consider the western ground had been sufficiently tried?—The SECRETARY said that Capt. Richards now recommended the trial of the lode in depth.—The CHAIRMAN said that it was the opinion of Capt. Richards, as expressed in former reports, that they were more likely to meet with successful results in searching for shallow bunches of ore in this district, than by sinking to a greater depth. He (the Chairman) could not help thinking that the expediency or otherwise of sinking the shaft was a matter which they had better by far leave to practical men, for he was sure there were none present who could express any correct opinion upon such a point—at any rate, as far as he was concerned, he felt that he was only acting justly to himself in being guided by Captain Richards, their manager, in whom he had the greatest possible confidence. The acquiring the additional ground southward was very desirable, for it would enable them to continue the cross-cut which had already been put out, and by which two lodes had been intersected, one being, as would be seen by the specimens upon the table, a very promising lode to operate upon; but, at the same time, the question of acquiring Lord Fortescue's ground was a subject for the consideration of the shareholders. As to whether the shareholders choose to extend the explorations in that direction he could not say, but he, for one, certainly wished to see what would be produced there; the cross-cut was 50 fathoms deep, and as it approached the river the depth of the cross-cut became shallower. In about 40 fms. this promising lode would be intersected, and as the ground was favourable for driving that might be accomplished in a short period. It was a matter of opinion as to whether the western drivage should be continued or temporarily arrested; and as to the abandonment of the mine, such was the constitution of the company, that any shareholder, unwilling to continue his interest, could, whenever he chose, relinquish his shares, and thereby exempt himself from further liability. Under these circumstances it was not necessary on the part of any shareholder to propose that the company should be dissolved, the more especially when there was a very large majority in favour of the further development of the property. As he had already observed, he very much wished to see those lodes tested at the depth of the cross-cut—40 fathoms from surface—that being the depth at which bunches of ore had been found in the Sortridge district. He believed he was the originator of the form of rules, such as that under which this company was constituted, and his object in framing them was because he thought it was inequitable and unjust to those who wished to continue the development of a mine, that they should be prevented from so doing by those who wished to dissolve the company, and to dispose of the machinery. To prevent this he had framed a rule that shareholders could at any time release themselves from further liability by relinquishing their shares, but that in doing so they should abandon all right and title to any portion of the plant and machinery.

Mr. LATIMER enquired the probable value of the machinery?—The SECRETARY: About 1400*l.* or 1500*l.*

Mr. JOSEPH proposed, as an amendment, that a call of 2*s.* per share be made. He was of opinion that the mine should be prosecuted for some time longer. Although he held a considerable interest in the company, the present was the first meeting he had attended; but, notwithstanding, he had given a great deal of attention to the property. They all knew that mining was but a speculation; the executive could only tell them that the sett had been traversed, and that such and such indications were presented, which were undeniable. The first question they should ask was—by whom were these indications considered so favourable for the realisation of satisfactory results? Why, by Capt. Richards, than whom there was not a more able miner, and his opinion had been backed by successful operations. Their worthy Chairman (Mr. Thomas) was connected with Capt. Richards in one of the largest mining adventures in the world, and it was hardly likely that their Chairman would be among the largest shareholders if he did not think there was some probability of success. It was for these reasons that he proposed a call of 2*s.* per share, as that would enable them to carry out the recommendation of their manager.—Mr. MILLS seconded the amendment.

The CHAIRMAN having put the amendment, a majority of hands appeared in its favour. The resolution was, consequently, lost.—A resolution was passed, adopting the report of Capt. Richards.—The committee of management were re-elected, with the addition of Mr. Joseph.

The meeting was made special for the purpose of considering the propriety of forfeiting the shares in arrears of call; but, after some discussion, it was agreed that the shares should not be forfeited, but that the arrears should be recovered through the Stannaries Court.—A vote of thanks to the Chairman terminated the proceedings.

BEDOL-AUR MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Great St. Helens, on Wednesday,

Sir WILLIAM SMITH, Bart., in the chair.

Mr. CHAS. THOMAS (the secretary) read the notice convening the meeting, and the minutes of the last were read and approved. A statement of accounts was submitted, from which the following is condensed:—

Purchase of mine	£1400	0	0		
Dec. mine cost	60	14	8		
Jan. ditto	54	0	1		
Feb. ditto	45	18	6		
March ditto	43	1	3		
April ditto	42	2	0		
Secretary's salary and rent of offices	44	2	0		
Office expenses, &c.	5	1	6		
Printing, &c.	4	18	6	= £1699	18 6
Call				1600	0 0
Leaving debit balance				£ 99	18 6

The report of the agent was read, as follows:—

June 7.—The pulley-shaft is now sunk 70 yards from surface, and we have cross-cut 8 yards to intersect the Brynia vein, and have driven 10 yards north-east on the vein. At the forebreast the vein is fully 1 yard wide, composed of spar, clay, limestone, and tumblers, with nice lumps of ore, but not sufficient to meet the cost of removal, and I daily expect to drop on a good bunch. I am glad to inform you that we have only a few yards to drive to intersect the Biligwyn vein, a vein which has been as rich as any east and west through all the neighbourhood, and I have not the least doubt it will be so here. I can only say that our trials here are as good as any in Wales. We have left some very nice ore in the roof in two or three places, which we can cut down after we have cut Biligwn vein as stoping ground.—THOMAS PIERCE.

The CHAIRMAN wished to know if there were any merchants' bills in arrear?—The SECRETARY said that every liability up to the end of April had been charged. The merchants' bills were paid every month, the same as the labour cost. He needly hardly say that the costs would be considerably increased when they began to work upon the lead; at the present time they were merely driving on the course of the lode.

A SHAREHOLDER enquired if it were probable any expense would have to be incurred for pumping machinery?—The SECRETARY replied in the negative, and stated that the whole of the country around was drained by "swallows." For that and other reasons, the mine could be very inexpensively wrought.

The CHAIRMAN enquired if any difficulty were likely to arise from a deficiency of water for dressing purposes?—The SECRETARY said that sufficient surface water could be collected for dressing purposes.

Mr. CROFTS enquired of the secretary if the Brynia vein had been cut when he was last underground?—The SECRETARY said it had not. He was much pleased with the general appearance of the ground, and it appeared very congenial for the production of lead. Although the Brynia vein had not been cut so rich as he had anticipated, yet he believed, when it was reached in a more solid state, it would prove very much richer. It was but a natural assumption that, when they got a little deeper in the limestone, the vein would be more defined and stronger. He did not disapprove of the present mode of working; but, at the same time, he was strongly of opinion that the number of men should be increased, so as sinking could be resumed, and the driving on the Brynia vein could be expedited, so as to reach the Biligwn vein as soon as possible.

The CHAIRMAN fully endorsed the opinion that the number of men should be increased, for it was false economy to starve a mine.—Mr. CROFTS knew that Capt. Pierce was desirous that sinking should be at once resumed.

A SHAREHOLDER remarked that there was another shaft, which had been sunk about 40 yards; but the working shaft was a considerable depth below that, so it could be of no service to them, except for the purposes of ventilation.—The SECRETARY said there were some other good lodes in the sett, which had hardly been touched. The whole of the surface had been turned over by the the "ancients," to a depth of 10 or 12 yards; but none of those veins had been proved below that depth.

The accounts were passed and allowed, and the report was ordered to be entered on the minutes.—Sir W. Smith, Bart., and Messrs. Jeffrys and Sharman were appointed the committee of management. A call of 2*s.* per share was made.

A vote of thanks to the Chairman terminated the proceedings.

THE MARAZION DISTRICT.—Parallel to the Old Wheal Fortune great copper lode, and about three-fourths of a mile south, were the Marazion Mines. This sett extended for about two miles in length, and includes the Wheal Chippendale, West Wheal Virgin, East and West Rodney Mines, Tregartha Downs, and the once-celebrated Owen Vean. The whole of these extensive mines were very rich during the last century. Some of them were wrought extensively for tin upwards of a hundred years ago, particularly the Owen Vean Mine, and from the returns of tin from the latter mines the Stannary laws were first framed, the dues being at that period one-sixth of the mineral raised or obtained. South of these mines is an extensive mineral property, about two miles in length, and known to contain several large, or champion, tin and copper lodes; but two mines only have been very partially wrought—one to the depth of only 40 fms., and the other about 60 fms. These infant mines will, doubtless, some day, with the parallel lodes, be wrought to great profit. The chances in this property are beyond a speculation. South of this is the Wheal Neptune and Tolvadden Mines, one of them but partially wrought, and the other the deepest shaft about 90 fms., and just coming into the ore. It is reported in the neighbourhood that the latter mines returned copper ores amounting to about 500,000*l.*, and will, doubtless, be in future ranked amongst the standing mines in the county, if the operations are vigorously carried out. The want of capital has hitherto been the great cause why these mines are not worked on a more gigantic scale. South of the above are other mines of less note; but there is a large lode to be seen at low water, 20 feet in width, which ere long will be a mine of great wealth, and the El Dorado of the district. Operations have been commenced to work this property vigorously, and, from the knowledge the proprietors of this property possess of the locality, the result is looked upon as a success.

LEAD MINING IN SCOTLAND.—A valuable discovery is reported to have been made on the property of Mr. William Forlong, at Erins, Lochfyne, which has been carefully explored by Mr. J. Cowsell, of Manchester, who, on May 9, discovered a vein of galena or deep blue flookan; it has since been opened up, and is found to be 9 ft. wide, and traceable for 1½ mile. Mr. Cowsell regards this as the champion lode of the district, and entertains a high opinion of its value.

MINING IN IRELAND—No. XV.

[FROM OUR CORRESPONDENT IN THE COUNTY OF CORK.]

At ROARING WATER MINE operations appear to be going on steadily for the development of the numerous lodes contained in the sett, which is very extensive, and favourably situated for shipping the produce and landing materials, as vessels can at high water come close up to the works. Grady's shaft has been sunk 18 fms. deep on the course of Grady's lode; the sinking for the present is suspended, until the whim, which has been erected, is ready to work, which will be in a few days, the water and stuff being too much to be discharged at the same time by windlass from the shaft and the cross-cut now being driven south to intersect the new lode. The lode in Grady's shaft is of good size, regular, and orey the whole of the depth sunk. West of Grady's shaft an open cut has been made, some 18 fms. in length, on the course of the lode, which is from 4 ft. to 6 ft. wide, consisting of gossan, soft spar, and rich copper ore, several tons of which have been broken therefrom, and dressed for market. At the west end of the open cut just mentioned a winze has been sunk on the course of the lode about 9 fms., in a productive and very promising lode. Six fathoms south of this winze the new lode was discovered in an open cross-cut, and which, a few feet under the surface, produced fine stones of rich copper ore, gossan, quartz, malleable copper, &c. The new lode and Grady's lode appear to converge rapidly going west towards the great cross-course, and it is calculated that in driving west about 20 fms. from the winze sunk in the west end of the open cut, the new lode and Grady's lode will form a junction near or in contact with the great cross-course. It is intended, I am informed, to resume the sinking of Grady's shaft, on the arrival of the whim-chain, to the 20 fm. level, and for a fork, cut a plat, and then drive the 20 fm. level west on the course of the lode to the western winze, and sink this winze also to the 20 fm. level, there being only 10 fms. to sink; and, when this communication is effected, to push on the 20 fm. level west of the winze, until it intersects the great cross-course, and forms a junction with the new lode. The driving the 20 fm. level from Grady's shaft to the western winze, and west from the winze to the cross-course, would lay open the lode over 40 fms. in length. The ground is favourable and easy to work, and, judging from the appearance of the lode, already laid open 18 fms. long in the open cut, its produce, and also the mineralised character of the rock in contact with the lode, I believe that a great discovery of rich ore will be the result of these operations, especially as the whole of the sinkings and drivings will be on the course of the lode. Grady's lode and the new lode diverge going east, and, this being the case, the cross-cut now being driven south from Grady's shaft may have to be extended some fathoms further than was anticipated before it intersects the new lode. This, however, will in no way interfere with the important and interesting works west of Grady's shaft. Three cross-courses have been found in this mine, and Gillman's shaft is being sunk perpendicularly between the eastern and middle cross-courses. This shaft will soon reach the 20 fm. level, and, if Grady's lode should not fall into the shaft at the 20, a short cross-cut, it is expected will reach it. When the adit level has been holed to this shaft, the distance will be ascertained to drive to cut the new lode and other south lodes. With the aid of horse-whims on Gilham's and Grady's shafts, sufficient depth may, no doubt, be reached, in order to ascertain the character and value of the lodes, and establish the fact of there being a good mine in Roaring Water; and when more powerful machinery is required for extensive and deep workings, a water-wheel may be erected, there being sufficient water-power to drain the mine 100 fathoms deep, also haul the stuff, and crush the ore. We have had eight weeks of continued dry weather, an unusual occurrence in this country, and at this time there is a powerful stream of water unemployed, the property of the company.

In the north part of the sett there is a wide vein of roofing slate, the outcrop of which on the top of a hill was, it appears, opened some fifty years ago, about 15 feet deep, and from which most of the houses in the locality were roofed. One house was pointed out to me which had been covered fifty years ago with the slate from this quarry, and it appeared to be as sound as when it was put on. This quarry, if properly opened, would probably be found of considerable value. About 250 fms. south of the copper lodes, and in a different formation, there are strong indications of beds of manganese; veins of barytes are also to be seen in the cliffs.

This is an extensive and valuable property, and, when further developed, will, no doubt, yield large and profitable returns. I am not aware that there is any difficulty in obtaining the necessary capital to work the mine; but, if it could be proved beyond a doubt that for every 1*l.* invested 50*l.* would be gained, I believe, because the concern —no matter of what kind—happened to be situate in Ireland, there would be the greatest difficulty in raising the smallest amount of capital. Capital, however, by the million is readily subscribed for foreign schemes, many of which are worthless; but for home *bona fide* concerns, you can scarcely get a person to look at them. Let those, however, who have *bona fide* mines in this country keep them. Let them exercise a little more patience and perseverance, and they will eventually reap a rich harvest.

I shall probably in my next communication allude to another valuable mining property in this district. The mine in question was worked many years ago, and abandoned; but a cargo or two of good ore was afterwards picked out of the "dead burrows," and sold in Swansea. This mine is not a hundred miles from Horse Island. A straight line drawn on a map from Roaring Water Mine to Brow Head Mine, a distance of over 20 miles, strikes right through Kilcoe, Cappagh, Ballycummisk, Schull Bay, Lemeon, Crookhaven, and Brow Head Mines, and there are several parallel lodes within a distance north and south of 150 fms. running through the entire district. That these lodes for the whole distance are identical I shall not attempt to prove; but that they are the same run of lodes I have no doubt. They are, however, in numerous intermediate places intersected by cross-courses, slides, and flookans, thrown out of their regular course, split up in small veins in some places, and again uniting, and taking the direct line of bearing, notwithstanding the numerous shifts and heaves, from Roaring Water to Brow Head. There can be no question but that they are the same run of lodes, although producing in the intermediate districts almost every known variety of copper ore, of which the largest and richest deposits yet discovered have been found near the cross-courses and flookans.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has not been very active this week. There has been a fair amount of business transacted in some of the leading market mines, but great fluctuations have followed almost every one; indeed, very few, beyond GREAT LAXEY, WHEAL SETON, and GREAT WHEAL VOR, have maintained their advance. GRENVILLE, EAST GRENVILLE, EAST CARN BREA, and many others have receded, and probably only, like EAST LOVELLS, which have been quoted considerably lower, affording an opportunity for a few "bears" to lessen their troubles by purchasing at once;—these shares must advance. The market generally will, no doubt, shortly improve, for if a decline in the standard influences the market one way, the recent advance of both tin and copper must favourably affect it the other.

The Banca sale of tin will be about 150,000 slabs, or—say, 5000 tons.

WHEAL SETONS have been freely dealt in, and fairly maintain their late advance.—WEST SETONS are rather heavy at present figures.—CLIFFORDS have been rather extentively dealt in, but since receded.—EAST BASSET and WEST BASSET are enquired for at nominal rates.—NANGILES have shared in the business of the week, but prices have been unsteady.—EAST CARN BREAS have been in good demand, and largely dealt in, but a decline has followed.—TINCROFT and COOK'S KITCHEN have changed hands at lower prices.—SOUTH FRANCES and WEST FRANCES have been in request at buyers' quotations.—WEST STRAY PARK and STRAY PARK have been enquired for at lower rates.

GREAT LAXEYS have been strongly enquired for at advanced rates, and likely to further improve.—EAST GRENVILLES have had a considerable rise, and extensively dealt in, but since declined.—WHEAL GRENVILLES have been rather quiet, and prices more steady.—SOUTH GRENVILLES have been enquired for.—NORTH CROFTY and NORTH TRESKERBY have changed hands at nominal figures.—WHEAL ROSE are sought for at lower prices.—GREAT NORTH DOWNS have been in good request, and prices steady.—NORTH DOWNS and GREAT BRIGAN are enquired for.—HALLENBEAGLES are still in demand, and prices fairly maintained.—GREAT WHEAL BUSYS have receded, but still dealt in.—NEW WHEAL ROSE have changed hands at nominal prices.—ST. DAY UNITED, NORTH SHEPHERDS, and CHIVERTON have been dealt in without any material difference of prices.—EAST WHEAL LOVELLS have been quoted at lower rates, but more than likely to resume their recent advanced price.—GREAT EAST LOVELLS are in request.—SITHNEY AND CARNMEALS are quoted lower, but very little done.—GREAT WHEAL VORS are still in good demand, with firm market.—BASSET AND GRYLLS and WENDRON CONSOLS are offered at lower rates.—PROVIDENCE, WHEAL MARGARET, and MARGERY are enquired for at buyers' prices.

EAST CARADONS are slightly better, but the transactions this week have not been large.—MARKE VALLEYS have changed hands at slightly firmer prices.—GLASGOW CARADON, GONAMENA, and WEST CARADON are very quiet, at lower rates.—MARY ANNS have been more in demand, whilst TRELAWNYS are more freely offered.—NEW WHEAL MARTHA and DRAKE WALLS are heavy at present prices.—HINGSTON DOWNS are in request at nominal rates.—WEST SHARP TORS, after a good demand and advanced prices, have receded.—CREBOR and EAST RUSSELL have been in fair demand at improved rates, but since receded.—EAST CARADON: There has been a slight improvement since last noticed, but greater is expected shortly. The caunter lode, in the 60 east, saving work; the 70 east is worth 10*l.* per fm.; the 80 east, 30*l.*; the 80 west, 8*l.* per fm.—New Lode: The 60 west, 5*l.*; the 70 east, 5*l.*; and 80 east, 5*l.* per fm.—South Lode: The 70 east, 8*l.*; and 70 west, 5*l.* per fm.

WEST SHARP TOR.—A short time since a discovery was reported, which created an impression that the long-looked-for course of ore had been met with; but further patience and outlay, it appears, are necessary, there being two or three important points to which the operations are being directed, and should they prove as hoped for, will soon give some relief to the now desponding.

HINGSTON DOWN is looking very encouraging indeed: the shaft is now sinking in a course of ore yielding 9¼ tons per fathom for the length of the shaft, valued at 75*l.* per fathom. The 110 west has slightly improved, which, with the stopes in the same level, are valued at 97*l.* per fathom together. The 85 and the stope in the back are worth together 48*l.* per fathom.

CREBOR.—The lode in the shaft continues large and promising, and improvements anticipated from its general character. The 96, east and west, is yielding about 1 ton per fathom each. The 84 is looking better and more productive, the eastern end being worth 2½ tons, and the winze sinking below 7 tons per fathom; and as this point is several fathoms in advance of the 96 end some important discovery may be expected as soon as they come under the orey ground gone down.

GREAT NORTH DOWNS.—The prospects here are highly encouraging, and likely to become, like its neighbour, a great mine. The lode in the River shaft has further improved, and stated to be worth 45*l.* per fm., and all other places looking well.

EAST CARN BREA.—By recent information, the new lode recently cut into at the 26 continues to improve in value as the operations are carried on. The eastern end is worth 7 tons per fm., and the western 4 tons per fm. The 60, east of cross-course, and the western end, are worth 2 tons of ore per fm. each; and the stopes in the back of the latter, 6 tons; the 30 east is yielding 4 tons. The several points of operation, including the stopes in the 60, are yielding 29 tons of ore per fm., and improving as they progress.

NORTH SHEPHERDS.—The engine-shaft is down about 3½ fathoms below the 15 end, in encouraging ground. A cross-cut is in course of driving from the 15, to intersect a north lode: a branch has been intersected, apparently dropping into the lode. They have a promising lode in the adit level, and also in the 16 west, on a north lode, which lode is expected to be met with shortly in the adit, when some favourable results are expected.

CAPE CORNWALL.—The engine and tank is nearly ready for the reception of the machinery, the greater portion of which is already on the mine. The carpenters and smiths' shops are finished, and all other surface work going on satisfactorily. A discovery of rather an important character has been made in the north part of the sett, where a lode rich for tin, and estimated worth 15*l.* per fm., holding out considerable promise, is now being laid open. Four men have taken to drive it, at 25*s.* per fm.

CALVADNACK.—By advices received yesterday, the lode in the bottom level has very much improved, but the nature and value of the improvement has not yet been received.

PEDN-AN-DREA UNITED is represented as very much improved going eastward, which ground is likely to become highly productive. The 130 east is looking very promising, and approaching the tin ground gone down below the 120, where, in a winze, the lode is worth 70*l.* per fathom. There are several other places looking very encouraging, and the prospects generally are more cheering than for some time past.

EAST LOVELL.—Notwithstanding the attempt to suppress these shares, the mine continues to improve both in sinking and driving. Although there are but few places in which operations are being carried on, still all that is absolutely necessary to lay open a permanent and paying mine is being done. The lode in the bottom of the diagonal shaft is now 60 feet wide, and worth over 170*l.* per fm. The 20 end, on the north lode, is still improving, the back of which, on the junction, is valued at 150*l.* The shaft on the south lode, below the 20, is worth 90*l.* per fm.; so that these three points are worth together 410*l.* per fm. Other operations are laying open more tin ground, and the communication of the shaft with the 26 fathom level will greatly facilitate and economise the workings. About 60 fms. further east they have commenced clearing up the old workings, where large quantities of tin have been raised, and little doubt remains of larger quantities being left for the present company.—GREAT EAST LOVELL: The operations are progressing satisfactorily. The East Lovell lodes, which have been partially opened, are improving in size and appearance.—WHEAL GRYLLS is reported to have improved in the 40, east of Annie's shaft, and in the 30, east of Grylls shaft, which is now worth 15*l.* per fathom. These improvements are looked upon as harbingers of further and greater ones, the mine having proved less productive than for some little time past.—EAST WHEAL GRYLLS is looking better in the 17, under the adit level, where they have a lode worth 12*l.* per fm.—GREAT WHEAL GRYLLS has improved in the 27 west, worth 12*l.* per fm.

SOUTH WHEAL LOVELL.—A prospectus has been privately issued, proposing terms upon which this important piece of ground is about to be worked. From the reports which accompany the prospectus there is every reason to believe, if experience and practical judgment be any guarantee of future results, that the fair development of this property will terminate in rendering it a permanent and paying mine. Its position is undeniable; the locality has been productive of some of the richest tin mines in the county, and even at the present time eminently remarkable for the great returns which some mines are making. The several lodes of Trumpet Consols, Wheal Lovell, and Old Trevenen traverse the sett, which gave vast profits to the proprietors; and, if the lodes were valuable there, the probability is that they will prove equally so here, being in similar stratification, as highly mineralised, and possessing all the elements of prosperity. According to the reports of Mr. H. C. Salmon, Capts. Wm. Chappell and Edmund Rogers, confirmed by numerous other experienced and practical agents, the lodes of Old Wheal Lovell, Trumpet Consols, and Old Trevenen traverse the entire length of the sett. The latter mine alone paid in one year upwards of 20,000*l.* for dues, whilst the gross returns of the three mines is stated to have been upwards of a million! These facts speak significantly in favour of the future position of South Wheal Lovell, and from the numerous applications for shares already made, by those especially who are well versed in mining enterprise, the list must be shortly closed. The mine is divided into 2000 shares of 2*l.* each, of which 2000*l.* will be applied to the working of the mine, and which is deemed amply sufficient, with the tin that will be raised immediately after operations have been commenced.

JAMES LANE.

From Mr. EDWARD COOKE:—In sympathy with almost every other market, that for British Mines has been very dull during the week. On the Stock Exchange the paucity of business has been a subject of general comment, consequently prices have been unfavourably affected. The principal cause assigned for this general dulness is political matters, and the great uncertainty prevailing as to the result of the Conference relative to the Danish question. Should a favourable termination take place, there will, no doubt, be a great rebound in prices of all kinds of stocks. Notwithstanding the dulness alluded to, there is an absence of anything approaching panic, and I have no doubt that in a few weeks business will become as active as ever again. In the meantime, it would be prudent on the part of those who have money to invest to take advantage of the present opportunity, when shares of various kinds may be bought at comparative low prices. EAST CARADON, GREAT WHEAL VOR, and TINCROFT shares seem to maintain their price fairly, while GRENVILLE, EAST GRENVILLE, and EAST LOVELL have declined; the decline in the latter share is absolutely without any tangible reason whatever. The mine at no former period was ever so valuable as now. The south lode has much improved, while the north lode is as valuable as ever. It is very important to find these two lodes going down in such rich courses of tin in each shaft, valued at 170*l.* and 90*l.* respectively. At the 40 it is intended to cross-cut from the north to the south lode, which are only 7 fathoms apart; and, in the manager's own words, "if the lodes continue so rich as now to the 40 the shares will be cheap at 40*l.* per share." I am quite aware that he is confident as to its being found rich in depth, and this opinion has been confirmed by agents of the deepest mines in the locality. Besides which, there is the testimony of Capt. Charles Thomas, of Dolcoath, as to the probability of its being a rich mine in depth. It is well known with what caution he speaks and writes about mining property. On East Lovell, a short time since, he wrote an unusually favourable report, and ever since that period the mine has continued to improve; so that, notwithstanding the present inexplicable low price of the shares, the shareholders may rest assured that they have a valuable dividend property, as yet not half developed. The statement of accounts of GREAT WHEAL VOR, made up to the end of March, and audited to that date, have been circulated among the shareholders, showing a profit of 3049*l.* 13*s.* 3*d.* At the meeting to be held on the 15th inst. the accounts will be brought up to that date, and will show a considerable profit, in addition to the above amount. The dividend is expected to be 12*s.* 6*d.* to 15*s.*, which will be an increase on the last, while the prospects of the mine are such as to indicate a larger dividend three months hence. I can only reiterate my opinion, that the present opportunity to buy into good mines should not be allowed to pass; and with regard to EAST LOVELLS, in particular, I believe that they will advance several pounds per share during the next two or three weeks.—P. S.: It will be seen by the report of the manager of EAST LOVELL that, so far from any failing off having taken place in the value of the mine, the prospects, on the whole, are more encouraging than ever. If after this the shareholders allow themselves to be duped into selling their shares, they will ere long have cause to regret having done so.

From Mr. HENRY GOULD SHARP:—There has been a good business doing, but prices have receded in several mines. NANGILES keep firm, although quoted lower in some daily papers; they are 30 to 31, and but few shares could be obtained at the latter price. At the next meeting a much more favourable financial statement will be shown. The merchants' expenses will be about 300*l.* less, and the sales of tin and copper about 250*l.* more; a small call will, therefore, only be required, after which, I believe, they will pay costs. There are not many mines with a Clifford Amalgamated adjoining them. Facts speak for themselves, and the investing public seem to have lost sight of the 20 fathoms of ore ground gone down in the shaft of Nangiles, worth from 35*l.* to 80*l.* per fm., thus laying open thousands of pounds worth of rich ore ground. In a former working Nangiles sold 120,000*l.* worth of minerals (when tin and copper were not above half their present value) sinking to the 80; they are now down 103 fathoms. The lode has dipped south; a cross-cut will be put out at the 106, to cut the lode, it having left the shaft. It is not my intention to run down any mines, but I think Nangiles far better than mines I could name selling for 50,000*l.* and 80,000*l.* The jobbers and dealers have lost the money in "bearing" these shares, and speak "feelingly" when their opinion is asked as to its merits. No honest practical miner ever gave a bad report upon the mine (one person, some time ago, said the lode was all mundic, when it was actually worth 80*l.* per fathom). I have strongly recommended the purchase of shares for some time past as a safe investment, and shall continue to do so, with the firm belief that the mine will carry me through in triumph, and my friends and clients have just cause for thanking me for having advised them to invest in a sound legitimate mine.

EAST CARADON, 28¼ to 29; when these shares were 1*s.* each it was difficult to find a buyer; but when they rose, in three years, to 50*l.* they were eagerly sought after. GREAT CARADON, on the same run of lodes, deserves attention, and there is no just cause why it should not prove a profitable mine yet; still, many parties advise holders to "sell the rubbish." EAST GRENVILLES have fluctuated considerably; after touching 5⅝ buyers, they fell to 4 sellers, rose on Thursday to 4⅞ buyers, and close 4¼ to 4⅜; they will, no doubt, go better. WHEAL GRENVILLES are flat, at 7⅛ to 7¾. CLIFFORD AMALGAMATED in demand at 35½ to 36¼; these mines have paid over 1,100,000*l.* in dividends, and their rich lodes all pass into Nangiles. EAST CARN BREA, after touching 9⅞ buyers, close 8 to 8¼; they will go better. WHEAL SETONS are firmer, 230 to 232½. EAST WHEAL LOVELLS are very flat, 16¾ to 17¼. EAST CHIVERTONS are decidedly the cheapest shares in the district, at 3*l.*, but at this price I doubt whether many could be obtained. SITHNEY WHEAL METALS are very quiet, no transactions recorded, 3¼ to 3½, and well worth buying; the mine adjoins Great Wheal Vor. CARN BREA has commenced dividends again; this mine has now paid 280,500*l.* in profits, on an outlay of 15,000*l.* WHEAL UNY, 5¾ to 6; WHEAL UNION, 1¾ to 2. NORTH BASSET, 1⅛ to 1¾, and are all well worth buying at present prices. WHEAL CREBOR advanced to 47s. buyers, and close 42s. to 44s. WHEAL TRELAWNY, 20 to 21, are a good investment; also WHEAL PROVIDENCE, 39 to 40. WHEAL AGAR, 3½ to 3⅝, are safe to rise in price, and will eventually pay well. GREAT WHEAL VORS continue firm, 33¾ to 34, and are likely to improve.

The public should be very cautious before dealing with certain parties in the country, who are sending round letters, soliciting business, and offering advice. They obtain a list of shareholders in various mines, and then try by false means to frighten shareholders out of their interest, especially should it be a good property. I have a letter now before me from a certain firm in Manchester, asking for a list of shareholders in a mine, and stating "they usually pay 2*l.* 2*s.*, when they are not shareholders." This is a very unfair system, and deserves exposure.

From Mr. W. LELEAN:—The improved prospects of the last week or two are not only sustained but somewhat bettered. The state of the Money Market, the tone of which is stendier, with well-founded anticipations of becoming still easier, is operating favourably on legitimate and promising undertakings. Metals are likely to improve in price, the downward tendency being apparently arrested. The Mining Share Market, though not so active as could be desired, is more buoyant, and, upon the whole, satisfactory, some of the properties showing a steady progress towards a considerable success. At TOLVADDEN the lode in the 93, which was last week worth 4 tons of copper ore per fathom, is now producing from 10 to 12 tons per fathom. The leader of the lode at the Down field, east of the shaft, in the 60, is increased to 10 in. wide, and a good discovery may here be looked for very shortly. In fact, the indications throughout the mine are in favour of large deposits of ore being developed.

EAST TRESKERBY continues to look exceedingly well, and will soon return the shareholders their outlay, all the points of operation being actively pushed forward. The situation of the sett is very favourable, Great Wheal Busy, Wheal Rose, North Downs, North Treskerby, and other mines being in the same district. The agents are very sanguine indeed. These shares should be bought while they are at a low price. There are 1024 shares, 8*l.* 16*s.* paid-up, the whole of which, besides the proceeds of the tin and copper sold at different times, has been expended in developing the property in a miner-like manner. The letters received at the office to-day represent the mine to have further improved.

At GREAT SOUTH CHIVERTON every effort is being made to reach the lodes in the deep adit level, and from the rich gossan, mixed with silver and lead, seen on the backs of the lodes, no doubt is entertained of a successful result when they are cut.

The GREAT LAXEY MINES are still looking well, and shares are in demand at 15*l.*; it is a first-class investment. They sold, on Monday, 100 tons of silver-lead ore, at 25*l.* 10*s.* per ton, and on Wednesday declared a dividend of 5*s.* per share, the profits of January, February, and March. The mine continues steadily to improve, and in September they will, no doubt, give a further 10*s.* per share, the proceeds of April, May, and June. The monthly produce averages 120 tons of silver-lead, 200 tons of copper, and 400 tons of blende, realising about 6500*l.*, at a cost of about 3000*l.*; and the returns will soon be greatly increased by the opening of the lode in the 210 fathom level. Eight months ago I recommended the purchase of these shares at 6*l.*; since then they have paid a dividend of 6*s.* per share (in March); and on the 8th inst., as I have said, a dividend of 5*s.* was declared. This is at the rate of 25 per cent. per annum on the capital of the company, and the dividends will increase at every meeting, as the prospects are, as we have seen, daily improving, while the reserves of ore at the present moment are estimated to be worth from 250,000*l.* to 300,000*l.* The dividends for the future will be regulated, not by fresh discoveries, but by the quantity of ore that can be brought to surface and be prepared for market. The ore in sight will be ample to last for years to come; and the indications are that an immense amount of ore ground will be laid open at the north part of the mines, hitherto unexplored.

EAST LOVELL shares have not been so firm, though the reports from the mine are good, and should the lode in the shaft continue, a large quantity of available ore ground will be opened for stoping at pleasure. EAST GRENVILLES have been in demand, and the reports are very encouraging. Altogether, the mine is looking better than at any former period, and is likely to become profitable. GREAT DARREN is improving, and will, I think, become a very valuable mine. BEDOL-AUR continues to improve. The lode presents a better appearance, and, considering the short time they have been working, and the small amount of money expended, there is every reason to be well satisfied. The sett is well situated. NORTH MINERA continues to progress satisfactorily, and in a few weeks will, it is expected, lay open a fine course of lead ore. WHEAL CREBOR is by no means encouraging in its prospects. The only noticeable thing is a winze going down in the bottom of the 84 fm. level. All the other points of interest referred to by me last year have come off, and I regret to say have, up to the present time, entirely failed. The utmost they can do for the next four months will be to get 40 tons of very low quality copper ore per month.

Amongst the new companies lately brought out, GREAT WHEAL METAL is deserving of notice. It is situated in the heart of the Vor district, having the Wheal Metal lode and the Great Wheal Vor elvan course. Considering the success of Great Wheal Vor and other mines, Great Wheal Metal possesses features of considerable attraction for capitalists. The property has been reported favourably upon by Messrs. Mark Hood, R. Symons, W. Chappell, Thomas Gill (of Great Wheal Vor), and other eminent agents. The TON MAWR ESTATE AND COAL COMPANY is also worthy of attention, as a new company, the profits in working the estate being estimated at 15 per cent. The statement in the prospectus is very encouraging, and detailed particulars will be sent on application. The capital is 120,000*l.*, in 12,000 shares of 10*l.* each, 3*l.* to be paid on allotment.

From Messrs. VIVIAN AND REYNOLDS:—There is great dulness in the mining market, and the same state of things prevails throughout every branch of trade and commerce, and yet everthing looks well. The weather is fine, a glorious summer seems to be before us. The season hitherto has been one of the finest we have known for many years; the country looks magnificent; and thus far everthing gives us ground for anticipating one of the most abundant harvests this country has ever produced. The chances of our being involved in war grow less and less every day, the Danes having wisely accepted terms which the bullying Germans cannot refuse without placing themselves completely outside the pale of European law. A good harvest and peace in Europe mean a removal of stringency from the money market, and a higher price of metals; a greater activity in trade and speculative enterprise. Mining will come in for its full share of these benefits, and this great branch of industry, which has been languishing for want of support from the public, will again become the great favourite channel for the employment of the surplus capital of the country. People do not as a rule take money from their trade or business to endeavour to make a fortune in mining, nor would it be wise for them to do so; but their accumulations of profits may be fairly embarked in one of the most legitimate of enterprise, and one in which there are opportunities of making larger profits than can be obtained from any other source.

Notwithstanding the excellent prospects which the future presents for mining, the best mines we have are at present neglected, and their price in the share market has consequently receded considerably of late, without apparent reason. The public, however, seldom appear to reason on these matters; they seem rather to act from impulse. When shares have again acquired much higher prices than those which prevail at present there will be a great demand for stock, and all will be eager buyers. EAST LOVELL is one of the mines which, although excellent discoveries have been made of late, has within the last few days receded in market value without any apparent cause. The reports from the mine are as good as ever, and the rich courses of tin being laid open offer the best guarantee for future profits. There were disbelievers in this mine when the discoveries were first announced; but the greatest incredulity would have given way, one would think, before the actual sales of tin which have taken place and the dividends of profits already made. There are, however, disbelievers in all great discoveries at first. It was so in Devon Consols when those splendid mines cut rich. People (and knowing ones too) shook their heads, and said it would be a short-lived affair; but it has already lasted long enough to give 934,912*l.* in dividends, and still there is no falling off, but as great a probability of continuous profits as there ever was, and the shares are now selling for 520*l.* each, or 532,480*l.* for the mine. The same thing occurred in Dolcoath and all the great mines by which it is surrounded, and South Caradon and the group of which it is the centre, and, in fact, in every mine which has given the greatest profits. Why, therefore, should East Lovell, and those young mines which are now rising to take the place of others which, having had a long career of prosperity, are gradually declining, be exceptions to the rule? It seems to be one of the necessities of a great success that it should at first be believed in but by a few. One of the most recent instances of this is afforded in Great Wheal Vor, in which shares could have been bought twelve months since for 6*l.* 10*s.*, and which are now 33*l.* to 34*l.* East Wheal Vor may be compared to Great Wheal Vor, the adjoining mine, of a year ago, and the price of shares very nearly corresponds. The prospects of the mine are excellent; the lode is becoming richer with increased depth, and yields tinstone of the same character and equally rich with that of Great Wheal Vor. There is, therefore, strong reason for anticipating that the price of shares will similarly advance. But, to reap the full advantage in such enterprises as these, which can scarcely be regarded as speculations, shares should be quietly picked up whilst the present dulness in the market prevails, and there should be no hesitation or delay until the periodical rush into mining takes place.

There are many other mines worth paying attention to at present. WHEAL CROFTY presents fine prospects, its situation being second to none in Cornwall, surrounded as it is by all the best mines of the celebrated Camborne and Illogan district. This mine is likely to give large profits on a very small outlay, being well supplied with engines and general plant. NORTH CROFTY is opening out one of the best tin mines of the same locality, and dividends can now be looked for with certainty. WEST CHIVERTON should be looked to as being the best lead mine of Cornwall, and at the present quotation of 70*l.* a good opportunity seems offered for acquiring an interest in this highly profitable mine. In CHIVERTON also, the old workings being now rapidly in course of clearing, and the lead ground almost reached, it would appear to be a good opportunity for purchasing. Of the new mines in the Camborne district, we recommend WHEAL HARTLEY to attention; there are strong indications that a great and profitable copper mine will be opened out here at very small cost.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following—

J. PHILLIPS, York.—Improvements in the purification of coal-gas, and in the application of the products resulting from such purification. May 12.

G. HASELTINE, Middlesex.—Improvements in portable drilling machinery, parts of which are applicable to machines for other purposes. May 13.

F. BLACKWELL, Devon.—Improved machinery for puncbing metal. May 14.

G. HUNTER, Merioneth.—Improvements in apparatus for cutting marble, stone, slate, and coal. May 17.

G. T. BOUSFIELD, Surrey.—Improvements in machinery for cutting files. May 23.

LETTERS PATENT have been issued for the following:—

A. NOBLE, Northumberland.—Improvements in the mode of igniting explosive projectiles. Dec. 24.

F. FOSTER, Middlesex.—Improvements in miners' safety-lamps. March 11.

H. B. JAMES, London.—An improved composition for covering steam-boilers and pipes, and other surfaces. Dec. 8.

LIST OF SPECIFICATIONS published during the week:—

Rotary engines, 4d.; steam-boilers, &c., 8d.; props and supports for mines, 6d.

L. DE FONTAINEMOREAU.

UTILISING WASTE FLUX FROM GALVANISING WORKS.—In the manufacture of galvanised iron a considerable quantity of either muriate of ammonia or sal ammoniac is used, the same being thrown upon the molten zinc; in a short time a dirty mass is produced, consisting mainly of chloride of zinc, oxide and carbonate of zinc, a little metallic zinc, and occasionally a trace of muriate of ammonia. This mixture has hitherto been of little use, and has been sold at a cheap rate mainly for reconversion into metallic zinc, and is generally known either as "waste or spent flux." To utilise this material, Mr. James Webster, of Birmingham, has patented an invention, according to which he takes any given quantity of the spent flux and macerates it in water for a convenient period, and when most of the chloride of zinc has dissolved he stirs up the solution, which causes the lighter particles of oxide or carbonate of zinc to be held in suspension in the liquor, he then draws this solution through a suitable strainer into a tank standing at a lower level, and, if necessary, repeats the process until the greater part of the chloride of zinc has become dissolved and run into the second tank. The fine particles of oxide or carbonate of zinc held in suspension in the solution in the second tank he allows to settle down, and draws off the supernatant liquor containing the chloride of zinc into a third tank, and then washes the precipitate in the second tank, and again runs the liquid into the third tank. The liquid in the third tank he now treats with ammoniacal liquor, such as the refuse liquor from gasworks, which causes a precipitate of oxide of zinc, and leaves a solution of muriate of ammonia; this solution, when evaporated and crystallised in the ordinary way, may be used in the galvanising works, or disposed of elsewhere. The precipitate left in the first tank would find a ready market among the refiners or others, at a higher price than the original spent flux; and the precipitate in the second and third tanks is, when properly dealt with, very suitable for paint.

GUNPOWDER.—Capt. Edward Schultze, of Potsdam, has invented an improved mode of manufacturing gunpowder. He proposes to take the natural grown-up trunks of trees, clear them from the roots and the bark, and cut these trunks into thin plates of the diameter of the trunks themselves. These timber-plates are cut by machinery into little grains of equal length and breadth with the thickness of the plates. The timber grains so obtained will become the powder grains. The first object of the chemical labour is to obtain the grains as porous as possible, and to clear them from all external mechanical substances. This is obtained by treating the grains with alkalis in a state of boiling heat, and next, to charge the incombustible timber grains into flammable, not explosive, grains. This is obtained by the application of chloride, and then of nitrous acid; these grains are made explosive by nitrate of potash, and in some instances by "kalliferrohydrocyanicum." The proportions are varied, according to the purposes for which the powder is to be used. In case the powder is to have a more gradually acting, not very explosive, force, the first combustible material (namely, the flammable but not explosive grains) will be ground into dust. This dust is then treated by the same process of the above-mentioned mixtures to produce the explosive power. From the matter so obtained a kind of cake of relative strength is produced by means of pressure, and these cakes are the material from which by the necessary machinery the powder grains will be obtained.

CAST-IRON BOILERS.—Within the last few months a boiler has been brought under the notice of the public, which really appears to be so thoroughly efficient that we should scarcely do our duty as journalists did we not call the attention of our readers to it. At the entrance to the Patent Museum, at South Kensington, stands a strange-looking arrangement, very unlike a boiler at first sight; nevertheless, from a combination of such arrangements, is built up the "Harrison," or, as it has sometimes been called, the "bomb-shell" boiler—an American invention, which has been used most successfully at the Messrs. Hetherington's, Manchester, for the last two years. As its name bespeaks, the generator is built up of a great number of spheres, each of only 8 inches diameter and ⅜ inch thick, cast in groups of four, and bolted together into slabs by through rods. Each sphere communicates freely with its fellows by means of necks cast on them, which at once serve to connect them, and to establish the communication. A certain number of these slabs are placed in communication, side by side, in a suitable brick-furnace, or rather oven, in such a manner that the heat may be most advantageously applied to them. We do not here purpose entering into details—it is enough to say that this cast-iron boiler has proved itself in every respect a thoroughly efficient, safe, powerful, and economical generator. Nor has it been tested on a small scale. A Harrison boiler of 200-horse power is working daily at the Messrs. Hetherington's; two or three of smaller size are at work in London and its neighbourhood, and others are in course of erection. Thus, then, we find that, in the heart of the most enlightened manufacturing cities in England, or in the world, wrought-iron stands a fair chance of being superseded by cast-iron for the purpose of making boilers. Verily, *revenons à nos premiers amours*. Nor is this to be wondered at. Wrought-iron plate invariably falls a victim sooner or later to the insidious tooth of corrosion. From this evil, cast-iron, as a boiler, is almost practically exempt; while its small first cost as a material, the ease with which it can be worked, and the great strength which it really possesses, when properly treated, points it out as adapted for the construction of a very large class of stationary boilers in cases where weight and space are matters of little importance, as compared with safety, economy, and moderate first cost.—*Mechanics' Magazine.*

Mining Correspondence.

BRITISH MINES.

BEDFORD CONSOLS.—J. Mitchell, June 9: On Saturday last the middle adit level was set to drive east on the north lode, by six men, at 5*l.* 10s. per fathom, stented the month, or cut the cross-course.

BEDFORD UNITED.—Jas. Phillips, June 7: The stopes in the 130 west are worth 3 tons per fm. The lode in the 115 west is 18 in. wide, producing stones of ore. The four stopes in this level are yielding on an average 3½ tons per fm. There is no alteration in the 103 west. The three stopes in this level are yielding on an average 3 tons per fathom. The stopes in the 47 and 35 east are worth 2 tons per fm. The lode in the 23 east and west is from 2 to 3 ft. wide, producing stones of ore, and looking promising.

BOSCAWEN.—J. Edwards, R. Giles, June 4: The lode in the 80, driving west of Hunter's shaft, is unproductive. The lode in the 70, driving west of said shaft, is 1 ft. wide, worth 20*l.* per fm. for copper ore; here the ground is much harder than usual, which causes the lode to fall in value. The south lode in this level, driving east of said shaft, is 18 in. wide, producing good stones of copper ore. The stope in the back of this level is worth 14*l.* per fm. The lode in the sump-winze sinking below the 60 is 2 feet wide, worth 15*l.* per fm. The stope in the back of this level is worth 12*l.* per fm. The lode in the winze sinking below the 50, west of Hunter's shaft, is 20 inches wide, worth 12*l.* per fm. for copper ore. The lode in the 30, driving east of caunter shaft, is 2 feet wide, producing good stones of copper and lead ores. No lode yet intersected in the cross-cut at the 14, south of Kitelee's shaft. The new shaft is now sunk 19 fms. 4 ft. from surface; ground still favourable for sinking.

BOTTLE HILL.—J. Eddy, June 7: Main Lode: The lode in the 10 and 24 fm. levels is without alteration since last week's report. The lode in the stopes in back of the 12, west of Williams's shaft, still continues to turn out good work for tin.—South Lode: Since my report last week, in driving east of shaft we find the ancients have worked as deep as the back of our 12, or about 24 fms. from surface; in pricking into those workings it has let down a great quantity of water, so much so that it has taken nearly the whole of last week to draw it out with our drawing machine and barrels. Judging by the work done by the ancients, we have reason to expect a good lode in this direction at a deeper level. The water is again in fork, and we resumed our driving yesterday.—Robert's Lode: For the last week we have been driving north of the lode, prickling into it occasionally as we go on; we find the lode produces good stones of tin; we shall take down the lode the latter end of this week, after which I shall be able to speak more fully as to the value of the lode. I am sorry to say our water is still very hard for drawing and stamping. We commenced burning for our next parcel of tin to-day.

BRONFLOYD.—June 1: The 52 fm. level, west of shaft, is making slow progress, the ground being very hard. The 40, west of winze, on the north side of the lode, is now intermixed with lead ore, saving work for dressing; while the stopes in the back, on the south side of the lode, has considerably improved, being worth nearly 1 ton of lead ore per fathom. No other alteration since last reported.

BRONFLOYD UNITED.—J. Lester, June 8: The following bargains were set on Saturday last:—The 40 to drive west on the north portion of the lode, by six men, at 100s. per fm.; the lode contains saving work for dressing. To stope in back of the 40, by six men, at 45s. per fm.; lode yielding about 15 cwts. per fathom; eight men to cut down a piece of lode in back of the 40, yielding about 8 cwts. per fm. The lode in the 52 continues without alteration; this level is now extended 57 fathoms 4 ft.; there are still 2 fms. 2 ft. to drive for the men to complete their contract of 60 fms.

BRYNTAIL.—J. Roach, June 6: The engine-shaft is sunk 3 fms. under the 20; up to this time there is no alteration in the ground. The men are using every effort to reach a 30 fm. level against the end of July. At this point, or probably before, the shaft will strike the lode. The 20, east of engine-shaft, is extended 22 fms., but no ore of importance has yet been found. Latterly a portion of the great cross-course was met with, which disordered the lode. We are now driving south towards the principal part of it; this I daily expect to intersect, when I think it will be found greatly improved in character. The 20, west of shaft, is also extended 22 fms.; the lode in the forebreast is 18 in. wide, consisting of flookan and sandstone, carrying small stones and spots of lead ore; it is very promising; a little of the stuff we save for dressing. The cross-cut north, now 2 fms. behind this end, has been driven on the lode north of level 20 ft.; the north wall has not yet been met with; the ground is wet and troublesome for driving. For the distance driven the lode contains lead ore throughout, including solid stones of 6 and 7 lbs. weight each. It is my opinion that when the 30 fm. level is driven under it the whole of this masterly lode will pay well for stoping, particularly if it improves from the 20 to the 30, as it has from the 10 to the 20. The winze under the 20 west, on the south part, in which there is a good lode of ore, was, as before reported, suspended, in consequence of too much water for sinking; this will be resumed when the lode is intersected underneath. The stope in back of the 20 west is worth from 8*l.* to 10*l.* per fm. for lead, but I do not expect this will continue high, as there was no ore in the 10; therefore, the ore in the 20 can only be considered as the upper part of a bunch. It is scarcely necessary for me to say, as it has been alluded to in former reports, that a rise from the 20 has been communicated with level above, and thereby good ventilation has been obtained throughout the mine. We have about 9 tons of dressed ore, and several tons in course of dressing. I shall commence sending off a parcel of 12 or 14 tons on Monday next.—P.S. The mine is in an excellent state of working, and the operations pushed forward with all the dispatch possible. It is impossible to do more.—Staff employed: Nine men sinking the engine-shaft, 10 fms. contract. Four men driving the 20 fm. level east. Two men driving the 20 fm. level west, south part of the lode. Four men stoping in back of the 20 fm. level, west of shaft. Three men driving a cross-cut north in the 20 west. In the latter bargain the men will be employed driving and stoping, which I calculate will pay well as soon as the north wall of the lode is reached.

BULLER AND BASSET UNITED.—J. Rule, June 8: The 80 fm. level west, on south lode, is much of the same character as last reported; it is yielding good stones of yellow copper ore, but as yet not enough to value. A large quantity of water is coming out from the end at present. Within the last six weeks the water has gone down in the old flat-rod shaft 12 fms. The ground in the cross-cut north is more favourable than last week. In the 60 fm. level west, on engine lode, the lode is 2 ft. wide, composed of quartz, prian, and spots of black ore occasionally; driving at 35s. per fathom.

CAPE CORNWALL.—R. P. Goldsworthy, June 8: We have made an important discovery in the north part of the sett, on Wheal Owl lode. In the adit level the lode is 15 in. wide, and producing tinstuff of an excellent quality. I have forwarded samples of the ores and also of the metal to the office. The quality of the metal is equal to the best tin raised in the district, as will be seen by the lump. We have two other very promising parallel lodes, enclosed in a beautiful soft channel of ground, which we can reach by a 20 fm. level cross-cut. This part of the sett, hitherto neglected, forms a very important portion of the valuable property. We shall at once commence to sink a shaft from the surface on Wheal Owl, and continue it to a depth of 20 fathoms below the adit, which we hope to accomplish this summer by the aid of a horse-whim; and at which point we shall cross-cut the other lodes, to prove their value. We are making rapid progress with all our surface operations.

CARADON CONSOLS.—W. Rich, June 7: We have a very fine cross-course in the 80 south, and good progress is being made in extending on it towards the south lode. There is nothing new of importance either in the north or the engine lode.

CARADON HILL.—F. Pryor, W. Johns, June 4: We have suspended the driving of the 10, east of trial winze, in consequence of foul air, and have placed the men to drive on a lode intersected in the cross-cut, north of Page's shaft, which is producing good stones of ore. The adit cross-cut, north of Page's shaft, on the cross-course, is still in a good channel of ground, the same being mixed up with soft patches of elvan. No lode or branch has been met with during the past month.

CARGOLL.—J. Grose, R. Tyzzer, June 8: We have cut the lode in East Wheal Rose sett in the new shaft; it is 3 ft. wide, composed chiefly of spar, flookan, w th squats of mundic: it is about to enter the blue killas, which I think is very likely to change its character, and we expect to find lead when opened upon at the adit level. The water is quick, and there are about 8¼ fms. through to the adit.

CARN CAMBORNE.—J. Seccombe, June 8: South Lode: In the 30 east the lode is producing 1 ton of ore per fm.; and west at the same level 2 tons per fathom. Clarke's lode, in the 13 west, is producing 1 ton of good ore per fm. The east end at present is disordered by a cross-course. The winze sinking below this level is yielding 1 ton per fathom.—North Lode: The winze sinking in bottom of the 13 is producing 1 ton per fathom. Fair progress is being made in sinking the engine and western shafts. The cross-cuts at the 30 are being driven towards Clarke's and the north lodes.

CASTELL CARN DOCHAN (Gold).—J. Williams: We still continue to find gold in the sink, and some specks in level No. 1. We have extracted 3 ozs. 4 dwts. 10 grs. for the week ending the 4th inst. from 7 cwts. of stuff, making in all 21 ozs. 6 dwts. 16 grs. from about 2 tons 7 cwts. of stuff. The Britten's machines are on the mine, and will be erected in a few days, when I hope we shall make regular weekly returns.

CEFN CILCEN.—C. Hester, June 9: In the end of the 80 fm. level, driving east in Sugan's shaft, the lode has improved since my last report, although the ore is not to value.—Office Shaft: This shaft is down to the 36 yard level, and a cross-cut is being driven to intersect three veins running to the north of the shaft.

CLARA UNITED.—J. Lester, June 1: The lode in the 40, west of engine-shaft, is about 3 ft. wide, a mixture of blende and lead ores. The whole of the pumps and materials below the adit of quarry shaft are now at surface at Ponterwyd, and which, with the 32-ft. water-wheel, will be removed to Dolwen. The men will now be set to prepare plat at Llywernog, and to sink shaft from the 40 to the 50 fm. levels, in one bargain, if possible.

CLARA UNITED.—J. Lester, June 8: Llywernog: The 40, driving east of engine-shaft, is much the same, yielding saving work for blende and lead ore; there is an increased flow of water in the present end, I am, therefore, hoping that the lode will improve shortly; set to four men, at 6*l.* per fm. The men have not yet completed the bargain to cut plat, &c., previous to sinking another 10 fms.—Dolwen: We are getting out the water from the shaft at top of the hill, so as to properly secure the lift during this dry weather; when the water is out we shall also see the nature of the lode in bottom, and the distance the level is extended east to meet the shallow level, &c.

CLOWANCE WOOD.—Edward Chegwin, June 3: The sumpmen are engaged clearing up the adit shaft, east of engine-shaft, to let down the water from the engine-shaft; when completed we shall commence cutting ground for house-lift. We are getting on as fast as possible with the engine-house, smith's shop, and all other surface work, as we are anxiously looking foward to get the engine to work, and sink the shaft to the 30 fathom level, and cross-cut to the different lodes, when we have no doubt we shall have large returns of ore, and leave handsome profits to the adventurers.

COED MAWR POOL.—M. Wasley, June 8: We have had but a few showers during the past month, which merely wetted the surface after such a long drought both in the spring and so far in the summer, consequently the machinery is all at a standstill, and the water so low in the Bod Lake that very little can be brought on in the leats, and all other resources are fully exhausted. The water has risen above the ore ground at the boundary and Mallet's shafts. The winzes under the 20 continued good as far as could be worked, especially the north winze, on the new lode, north of Mallet's shaft, which has reached the elvan, where very clean, compact, fine lumps of ore have been raised, and the ground is still productive and very promising in the bottom. The men are at present raising ore from Chandler's south lode at and above the 10, at Wasley's shaft, and to the east of it on the same lode, which is turning up a fair quantity of ore for the hands employed. We have 12 tons of ore dressed in store, and about 3 tons in course of dressing, together 15 tons.

CONNORREE.—Capt. Bishop, June 4: The deep adit is very much the same as for some time past. In the 54, west of engine-shaft, there is no change during the week in the rock or matrix of the lode. The 45, west of engine-shaft, is not yielding so much ore as it was last week, but the ground here is very changeable, and may shortly improve again. The 20, west of new shaft, is yielding a little black and grey copper ore. No change calling for remark has occurred in the 18 fm. level ends, east and west of new shaft, during the week. The 10, west of old cross-cut, is yielding black copper ore, and mixed with sulphur. The lode in the 10 south, and west of Tracey's shaft, is large, and contains good stones of ore, lead, jack, &c. Nothing new has occurred in the 20 cross-cut, south of new shaft, during the week. The rock formation in the 10 cross-cut, south of Tracey's shaft, is more favourable for exploring. I cannot speak of any marked change in the stopes on the great copper and other lodes for the week. The late improvement at the 35 still continues, and its aspect is most cheering.

CRENVER AND WHEAL ABRAHAM.—J. Vivian, June 2: At Vivian's engine-shaft, in Oatfield, the masons have made good progress in building the large 90-in. cylinder engine-house, and whim-house for a 30-in. cylinder whim and capstan. The steam hoist (a new feature in Cornish mine buildings) answers its purpose most satisfactorily, either in lifting or drawing large block of granite over the rough surface on to the buildings. We have cleared and secured a great length of the adit in this part, which will put the mine in good condition for draining, as soon as we are ready to set our engines to work. The wheel-pit for the water-wheel for driving the sawing machinery is completed to take the wheel, which, with fittings, is made ready to put in; this will be done in a few days. The boiler builders have completed four large boilers, and are getting on with others with all possible dispatch. At Wheal Abraham middle sump the masons building the house for the 80-in. cylinder-engine have made very satisfactory and rapid progress, this house being already above the arch over the cylinder opening, or 30 feet high. We have this engine on the mine ready to put in the house, and we hope in a few days to commence a whim-house for our second 30-in. cylinder whim and capstan. We have cleared and secured a great length of adit for future drainage in this part of the mine. At Thomas's, or the western district, the masons have commenced building the engine-house for the 70-in. cylinder-engine and whim-house for our third steam-whim and capstan; these masons will make great progress, as we have purchased a large quantity of heavy granite, which is in course of delivery. The engineer has laid out plans of saw mill-house, smithy, carpenter's shop, fitting shop, &c.; these buildings will be got on with forthwith, as the whole of the machinery is now nearly completed. We have selected the position for a large reservoir to hold a supply of pure water for the general purposes of the mines, including condensing water for our engines and for dressing our ores. The walls of our counting-house are completed, and the timberwork of the roof on; this house will be covered in and slated during the coming week. The quarries continue to yield an abundance of good stone, sufficient for all our purposes. In every department the greatest energy has been displayed, and the works are pushed on with a full staff of men.

CUDDRA.—Francis Puckey, E. Dunstan, June 9: In the 105 cross-cut north, east of Walker's shaft, we have intersected the lode, but only having broken a small quantity we cannot yet report its value. As far as seen, the lode is producing some good work for tin, but in consequence of its being very hard, we shall drive 6 feet east under the lode before we cut it through. In the same level west we are driving on the lode, which is still very large, composed of quartz, peach, gossan, and iron, and producing a little tin, but not sufficient to value. In the 90 west we have cut into the lode about 4 feet; it is composed chiefly of hard capel, but we consider that we are now getting near the main part of the lode. In the 75 we are cutting out the killas under the lode preparatory to opening out another stope. In the stope in the back of the 75 fathom level, and west of the winze, the lode is at the present time very large, and worth 50*l.* per fathom. In the stope in the back of the same level, and further west, the lode is 4 feet wide, containing more gossan, and now worth 10*l.* per fathom. In the 60 fm. level cross-cut, north from the present end, we have driven 4 feet, through capel, gossan, and iron, and from the appearance of the stopes in the back of the 75, we calculate to have 6 feet further to drive to reach the tin part of the lode. The lode in the stopes in the back of the 60 west is 4 feet wide, composed of peach, gossan, iron, and tin, worth for the latter 8*l.* per fathom.

DARREN.—R. Williams, June 8: We are now engaged in fixing the lift at the 15, which we hope to accomplish by to-morrow, when we shall at once divide and case the shaft to this level, and bring down the kibble for the latter work; the necessary plank and other timber is on the mine ready to place in position, and will be done by the end of this week, when we shall at once cut into the south part of the lode in our driving east and west of the shaft, but, probably, first on the western side. At the surface we are raising stones for the buildings necessary for the drawing-machine, which will be got on with at once. On the dressing-floors we have only a small force, sufficient to keep away our raisings, which for the moment are small. We have in the bin, and in the course of dressing, about 20 tons of silver-lead ore of good quality, and the features are generally cheering.

— R. Williams, June 9: We have finished the fixing of the lift at the 15, also the new bob at surface; got the engine to work this morning about four o'clock; and after clearing away the work from the stope we shall arrange the shaft for the drawing at the 15. The lode in bottom of the intermediate level, back of the 10, looks well; we are stoping up 6 ft. of the bottom, and if it continues as now we shall stope deeper, or open south at the 10, and then stope upwards; the bottom is worth full 30 cwts. per fathom.

DOLFRWYNOG.—C. W. Seccombe, June 6: I let the stripping of the old timber and cutting all the ground necessary for the tramroad and ladders, and the putting it in all complete in No. 3 shaft for 10*l.*, and I gave the men 4*l.* for cutting a lodge at the bottom of the shaft. There are four men stoping quartz in the back of No. 4 level, at 3*l.* per fm.: the lode here is about 2½ feet wide. During the past week we have been fitting the winding gear and clearing out the rubbish from the house below it, and been laying down a branch tramway to take away the waste stuff that is to be drawn up from underground. We had a fine shower of rain yesterday afternoon, which has given us plenty of water for the time.

EAST CARADON.—J. Seccombe, June 8: Caunter Lode: The 60 east is producing saving work. The 70 east is worth 10*l.* per fm.; the 80 east, 30*l.*; and the 80 west, 8*l.* per fm.—New Lode: The 60 west is worth 5*l.* per fm.; the 70 east, 5*l.* per fm.; and the 80 west 5*l.* per fm.—South Lode: The 70 east is worth 8*l.* per fathom; and the 70 west 5*l.* per fathom.

EAST CARN BREA.—T. Glanville, J. Scholar, June 8: In the 60, driving east of the cross-course, the lode will produce 2 tons of ore per fm. In the 60, driving west, the lode will produce 2 tons of ore per fm. The stopes in back of the 60 will produce 6 tons of ore per fm. The 50, driving west on No. 4 lode, will produce 2 tons of ore per fm. The 30, driving east, will produce 4 tons of ore per fm. The 30, driving west, will produce 7 tons of ore per fm. The 26, driving east on the new south lode, the lode will produce 2 tons of ore per fm. In the 26, driving west, will produce 4 tons of ore per fm. The 26, driving west, will produce 4 tons of ore per fm. Other parts of the mine are without alteration.

EAST CHIVERTON.—J. Nancarrow, June 7: Our engine-shaft is deep enough for fixing a plunger-lift, and the sumpmen are cutting bearer-holes up for this lift; I think we shall accomplish this and be ready for sinking again in three weeks, if we have good speed. The north cross-cut at the 35 is just the same as last week, now costing us 11*l.* per fathom for driving. The east end, on the south lode, is not looking so well as last week; this lode is small and poor, now costing us 55s. per fm. for driving. The eastern end, on the north branch, is just the same as last week, costing 4*l.* per fm. for driving. We have met with a lode in the adit cross-cut, about 18 inches wide, but we cannot say much about it yet, as we have only now got through to it, but what we have seen is of a promising character. We are now commencing to drive west on this, and I think if the channel of ground continues with this lode, the chances will be great for meeting with lead in opening on this. We cannot say what lode this is, but I rather think it is Old Chiverton caunter lode, but we shall be able to say more about this in opening on it; this end is costing us 20s. per fm. for driving.

EAST CLOGAU (Gold).—K. Roberts, June 7: On May 30 the men commenced in St. James's No. 2 level to sink on the lode; the lode now turns out a beautiful white and yellow auriferous quartz, presenting itself very favourably for gold. There is no change to notice in any of the other levels during the past week. We have at hand a good stock of quartz ready for the machinery, but at present there is not water enough to work it.

EAST GREAT WORK.—J. Lean, June 8: The sinking of the engine-shaft is progressing much the same as usual: it is now sunk 12 fms. 4 ft. below the shallow adit; but for the delay caused by heaving the lift this would have been 13 fms.—Wheal Dolphin Little Lode: At the adit end driving west the lode is from 6 to 8 inches wide, composed of spar, mundic, and peach; the ground is favourable for driving. There are about 4 fms. more to drive to intersect the Great Work lode at this point.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—J. Phillips, June 9: The lode in the 12, east of Gard's shaft, is 2 ft. wide, of quartz and mundic, but we expect an improvement shortly. In the deep adit the lode is 6 ft. wide, 3 ft. of which is good saving work, composed of quartz, coated mundic, and rich yellow and black ore—a most promising lode, with every chance of a speedy improvement.

EAST JANE.—T. Hodge, June 4: The following is our setting report:—The western shaft is below the 26 nearly 7 fms., the ground in which is of the most favourable character; set to eight men, at 12*l.* 12s. per fm. The lode in the 26 south end is looking well, worth full ½ ton of lead per fathom, and likely to continue; set to six men, at 4*l.* 10s. per fm. The 26 cross-cut to drive west, at 6*l.* 10s. per fm., the ground in which is without any change to notice. The lode in the 26 north end is producing some good stones of lead, and promising to improve; set to two men, at 50s. per fm. The stope in back of the 26, south of rise, will yield 6 cwts. of lead per fm.; set to six men, at 21s. per fathom. The stope north of rise will yield 6 cwts. per fm.; set to six men, at 20s. per fathom. To rise in back of the 14 north, by two men, at 35s. per fm., the lode in which is 2 ft. wide, producing occasional stones of lead. The 14 to drive north, by two men, at 50s. per fm., the lode in which is 20 in. wide, with a promising appearance.

EAST MARGARET.—R. James, Wm. Williams, J. H. Birch, June 9: The stope in back of the 87, east of engine-shaft, is worth 10*l.* per fathom. In the 77 east the lode is worth 7*l.* per fathom. In the 67 east the lode is worth 5*l.* per fathom. In the 57 east the lode is worth 5*l.* per fathom. No. 1 stope, in back of the 57 east, is worth 7*l.* per fathom. No. 2 ditto is worth 5*l.* per fathom. In the 47 east the lode is poor. In the 27, west of Pool's, the lode is worth 6*l.* per fathom. At the new shaft sinking below surface the lode is yielding a little tin and copper, but not enough to value.—Curgenving's Lode: In the 57, east of cross-cut, the lode is worth 5*l.* per fathom. In the 57, west of cross-cut, the lode is worth 5*l.* per fathom; the stope in back of the 57 is worth 5*l.* per fm. In the adit level, east of Curgenving's lode, the lode is worth 8*l.* per fm.

EAST ROSEWARNE.—J. James, June 9: There is no change to notice in Hallett's shaft since last reported. In the 75 east the lode is 10 in. wide, worth 11*l.* per fm. In the 75 west the lode is a little disordered by the slide, but worth 12*l.* per fm. In the 65, west of sump-winze, the lode is 1 ft. wide, and worth about 10*l.* per fm. In King's shaft the lode is 15 in. wide, worth 30*l.* per fm. The stopes and tribute pitches are without change to notice.

EAST TRESKERBY.—J. Nancarrow, June 8: The lode in the 12 west is small, but yields a little tin; the stope below this level continues to improve, and is worth 18*l.* per fm.; the stope in back is worth 6*l.* per fm. The 12 end east looks promising; the east stope in back is worth 14*l.* per fm. The lode in the east shaft is improved, now worth 6*l.* per fm. The 20 fm. level end men are engaged cutting a plat at the north shaft, which will be finished in about a week.

EAST WHEAL AGAR.—F. Pryor, Wm. Johns, June 4: The sinking of Dunsford's shaft is progressing satisfactorily, in which the lode is still split into branches. There is no change to notice in the 30, west of shaft. The winze sinking below the 15 fathom level, and 20 fms. in advance of the 30, is still looking pretty well, and opening up tribute ground. The 15, west of cross-course, on Hext's lode, is producing stones of ore. The 15 cross-cut, north of Cole's lode, on the cross-course, is still in the elvan, and has been so for the last 10 fms. No lode or branch has been met with during the past month.

EAST WHEAL ELLEN.—Capts. Pryor, Garland, and Corfield, June 6: The lode in the deep adit level, east of Pryor's shaft, is full 4 ft. wide, composed of mundic, blende, peach, and spar, with good stones of copper ore throughout, but not quite enough to value; this end is letting out a quantity of water, and its appearance and character will induce anyone to say that an early improvement may be shortly expected. The lode in No. 1 stope, in the back of this level, is 3½ ft. wide, but not quite so good as when last reported on, being disordered by a hard floor of ground, which came in from the south, now worth 1½ ton of ore per fathom; we believe it will shortly improve to its former value. The lode in No. 2 stope, in the back of ditto, is 2½ ft. wide, and worth in the western end full 2 tons of ore per fathom; this stope is up about 9 fms. above the back of the level. The lode in No. 3 stope is 2 ft. wide, worth 2 tons of ore per fm.; we find the ore ground in this stope is still extending west, and we have now discovered this run of ore, from 38 to 40 fms. in length. We are getting on well with the next sampling, and shall have from 45 to 50 tons. We have also on the floors about 25 tons of halvan ore, and as soon as the standard takes a turn in our favour we shall at once dress and make it saleable.

EAST WHEAL FLORENCE.—William Verran, June 8: We have commenced an engine-shaft, and intend to prosecute this most promising adventure in good earnest, as there is everything to warrant a vigorous and speedy development. The sett, which is over 550 fms. in length, on the course of the lodes, and about 350 fms. in width, is known to be traversed by at least five lodes, two of which form a junction about the centre of the sett, and, judging from appearances, as far as the two above-named lodes have been operated on, we have reason to expect large deposits of ore at this point. The junction referred to is about 250 fms. east of the great cross-course, in close proximity to which so much ore has been raised, both at Kelly Bray and Holmbush Mines; and, had we to draw our inferences from that fact alone, we might reasonably hope for similar results. But, in addition to that, we have the pleasing fact of having sampled and sold 20 tons of ore at a depth of 10 fms. from surface, and have now on the mine upwards of 20 tons of coppery mundic ready for sale, besides some tons of good quality ore broken by tributers above the adit level. The mine is now divided into 6000 shares, large numbers of which have been applied for before the prospectus is issued, and the allotment will, no doubt, be made equitably. Annexed to the prospectus about to be issued will be reports from three mine agents well known in the mining world, which your readers will have an opportunity of perusing for themselves before coming to a conclusion whether to take shares or otherwise. I may here say that the original shareholders intend to hold very largely, as they are resolved to prosecute the mine with vigour, and do not so much depend on what might be realised by selling shares as what they hope to receive in the shape of dividends. A suitable engine is to be forthwith erected, and the mine developed with all dispatch consistent with economy.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, June 7: We have now come up from underground, and find the lode in the end maintains its size; it is from 4 to 5 ft. wide, and yielding about 5 tons per fm.—a strong and pretty lode, with an excellent course of ore going below, and no miner in the world can dislike the appearance of the lode.

— G. R. Odgers, William Bennetts, June 8: We beg to inform you that the lode in the engine-shaft sinking below the 65 is 15 in. wide, and improving in appearance; it will yield 1 ton to the fathom, and as we sink the ore appears to be dipping west. The lode in the 65 east is 2¼ ft. wide, composed of quartz and stones of ore, with a little tin, and letting out a quantity of water—a very promising lode. The lode in the rise above the 65 east is 2½ ft. wide, yielding ore and tin, and worth from 6*l.* to 8*l.* per fathom. The lode in the 65 west is from 4 to 5 ft. wide, yielding from 4 to 5 tons to the fathom—a splendid-looking lode; in fact, we are evidently going over a good bunch of ore, and if the lode continues as at present in the bottom of the level, it will yield from 8 to 10 tons to the fathom. Of course, the present end is not quite so orey, but it maintains its size, character, &c., and these changes are only what lodes are subject to; we like the lode very well indeed. We are getting on very well with the 55 west, and it is precisely the same as the 65 before we discovered the bunch of ore in it.

— G. R. Odgers, June 9: I like the appearances of the lode in the shaft very much indeed, and which I consider to be improving; it will produce full 1 ton per fm. The lode in the 65 west maintains its size and character; it will produce about 3 tons per athom, and from the features the lode is presenting I am expecting it will improve again.

EAST WHEAL GRYLLS.—E. Rogers, J. Pope, June 9: Middle Lode: In the 17 fm. level we are driving east and west of Firmstone's engine-shaft, by six men, at 3*l.* per fathom. The lode in the end east is 2 ft. wide, worth 4*l.* per fm. In the end west the lode is 2½ ft. wide, worth 3*l.* per fm. In the winze in bottom of the 10 the lode is 3 ft. wide, worth 12*l.* per fm.; price for sinking, 2*l.* per fm. The adit end is driving east of new whim-shaft, by two men, at 2*l.* 15s. per fm.; the lode is 18 inches wide, producing stones of tin. In the 17 from surface, we are driving east by four men, at 2*l.* 10s. per fm.; the lode is 3 ft. wide, worth 12*l.* per fm. In this level the cross-cut is communicated to a rise on Fisher's lode, which has facilitated operations in this part of the mine.—South Lode: At the bottom of the adit we are sinking a winze by two men, at 1*l.* per fm. No lode has yet been taken down.—Fisher's Lode: The 10 is driving east of Thomas's shaft by six men, at 3*l.* per fm.; the lode is 3 ft. wide, worth 4*l.* per fathom. In our tribute department we have 20 men employed, at tributes varying from 8s. to 10s. in 1*l.*, they paying all expenses.

EAST WHEAL LOVELL.—J. Burgan, June 9: The shaft sinking below the 26 is down 11 fms., and worth 170*l.* per fm.; the lode is 10 ft. wide. The shaft below the 20, on north lode, sinking through the arch has made good progress, and expect to communicate with the 26 in a day or two. The 20 fm. level end is still improving on north lode; the back of this level, on the junction, is worth 150*l.* per fm. The south lode shaft, sinking below the 20, down nearly 4 fms., is worth over 90*l.* per fm., and the lode 6 ft. wide. In sinking another shaft, 57 fms. further east in the sett, we have met with the old men's workings, extensively wrought by them, when after some more clearing we expect to reach valuable ground.

EAST WHEAL RUSSELL.—J. Goldsworthy, June 8: In the 130, east of Homersham's shaft, the lode is 2½ ft. wide, composed of capel, quartz, pesch, mundic, and produces occasionally stones of yellow copper ore; the ground is favourable, and good progress has been made. The part of lode being carried in the 120, west of Maynard's cross-cut, is 3½ ft. wide, composed of capel, iron, quartz, and produces a little grey sulphate of copper ore. The ground in Barkell's winze, sinking below the 120, is favourable for progress. The ground in Barkell's cross-cut in the 120 east, driving north, is a mixture of killas, capel, &c., and slow for progress. The stope in back of the 120, west of Doidge's winze, is worth 8*l.* per fm. The stope in back of the 120, west of Doidge's winze, is worth 4*l.* per fm. The rise in back of the 77 is suspended, the lode being small and unproductive. The lode in the 45 east is 3½ ft. wide, composed of capel, quartz, iron, peach, mundic, and produces occasionally a little copper ore. In the 88, west of Hitchins's engine-shaft, the ground in William's cross-cut north has improved, and better progress has been made. We have had a crush of ground in the 100 in the old tribute ground; the lode being all taken away the sides became heavy, and the timber gave away to the point of the horse which divided the lodes; this crush is gone within about 3 fms. of the 45 in the old stulls, the consequence of which is but trifling. We shall have a small piece of level to make in the 100, 88, and 66, which Homersham's shaftmen are now engaged about; this will save a great deal of timber in future. The old stulls, &c., are now full of attle; before, in many places, we were obliged to use timber to keep the ground open.

EAST WHEAL VOR.—J. Pollard, June 8: I beg to hand you the report of this mine, as requested by Capt. W. C. Vivian. The engine-shaft is sinking satisfactorily now below the 60, 9 fms. 3 ft., on a very large and promising lode, composed of peach, quartz, mundic, &c., and producing some very fine stones of tin, the value of which cannot be tested until we bring a pile to surface for assay. This lode is Great Wheal Vor main lode, and I am fully convinced it will become quite as productive as the old mine was in the former working. In the 60, driving east, the lode is full 6 feet wide, and still in rather a disordered state. The cross-cut driving north from plat has passed through a nice channel of elvans, which will fall in with the lode about the 90, and think they are very likely to improve the lode at that point. In the 60 west, on engine lode, I have suspended the driving of the cross-cut north, there being no more lode cut, and have put the men to drive west on the former course, to see how it looks; at present, the lode is small and poor.—Smith's Lode: In the 30, driving east of cross-cut, the lode is 2 feet wide, of a promising appearance; there is still a little copper ore in it, but not sufficient to value; the rise in back of ditto is improved; the lode is 1 foot wide, worth for tin 10*l.* per fathom, with a very kindly appearance.—Metal Lode: In driving east of boundary shaft, in the 6, the lode is 15 in. wide, producing saving work for tin. We shall commence clearing the shaft on Monday next by horse-power; as soon as cleared to bottom a cross-cut will be commenced to intersect the lode. At the new shaft, about 150 fms. east of ditto, we have cut a cross lode, and have put the men to drive west, to get in settled ground to cross-cut north and south, and by the appearance of the ground I think the lode is near. All other parts of the mine progressing favourably.

FRANK MILLS.—J. P. Nicholls, J. Cornish, June 8: We are now engaged sinking the engine-shaft below the 100, by six men, and we shall push it down to the required depth for another level as fast as we possibly can. The lode in the wide stope, in back of the 60, is looking well, and yielding fully 2½ tons of lead ore per fm. The 45 fm. level, stope adjoining to the south is yielding 1¾ ton of lead ore per fm. The 45 fm. level, north from the north air shaft, is without any particular change since our report of last week; and the 45, south from the rise coming back against, is also looking much the same. The tribute pitches continue to yield as much ore as at any former period, and all our operations are progressing well.

FURSDON.—J. Collins, June 8: At the place referred to in my last, where the tributers are driving from the winze to hole to the bottoms in the bottom of the 11 west, they have intersected a branch of ore full 6 in. wide of good quality, and has every appearance of a permanent branch of ore. Probably it is one of the branches referred to some weeks since, which was said to be gone down in the bottom of the 11 west, and north of the large lode which the tributers have been working on. The branch is cut about 4 fms. above the 21, about 2 fms. south of winze. As soon as the holing is completed we shall be in a position to raise ore with more speed. No change in any other part of the mine. We are using every effort in trying to get 40 tons of ore for the next sampling. From the present appearance of the mine, we may expect an increase of ore in a little time.

GAWTON.—George Rowe, June 6: Our tutwork operations and monthly settings on the 36 west, by four men and boys, at 4*l.* per fathom, stent the month. The 24 to drive on the north part of the lode east from Saturday last consisted of stoping the back of the 36 west, by four men and boys, at 4*l.* rise, by four men, stent 2 fms., at 3*l.* 15s. per fm.; this drivage will be extended some few fathoms previous to taking down the orey part of the lode. The new engine-shaft is down 36 fms. 0 ft. 6 in. below surface; at about this depth we purpose to fix a new 11-in. plunger-lift. The necessary materials for this work are already obtained and on the ground, but previous to this new fixture, about 2 fms. more is required to be sunk, which will occupy full one month. The former contract in sinking the shaft is not quite accomplished. Judging from the present appearance of the ground in the shaft I am inclined to think we are getting near the south lode, which is about the depth we at first anticipated to intersect it.

GREAT BRIGAN.—J. Tredinnick, June 4: The ground in Highburrow shaft has improved since last week, and the lode becoming more regular. The lode in the eastern end is 18 in. wide, and producing some good spots of ore. The lode in the end driving west of the above shaft, at the 33, is unproductive. The ground in the cross-cut driving south at this level is more favourable for driving than it has been. In driving the cross-cut north from Ennor's shaft we have intersected a branch, composed of mundic, prian, and spots of copper ore, of a very kindly appearance. I intend putting the men to drive a few feet on the course of the lode to prove its value. We have fixed the whim on Ennor's shaft, and cleared the stuff. The ground in the cross-cut driving south from east boundary shaft is a little easier than it has been. We have cut down the eastern shaft from surface to the shallow adit, and the men are now casing and dividing the shaft, putting in footway, &c.; after this is complete we shall cut the plat, and get everything in good course for sinking.

GREAT DEVON AND BEDFORD (Colcharton).—J. Richards, June 7: Chenhall's engine-shaft is down 5 fathoms 5 feet below the 30 fm. level; I am glad to inform you that the ground is very favourable for progress, and should it continue as it now is, the shaft will be down to the 40 in about three weeks from this time. The lode in the 30, driving west, is looking very favourable for shortly producing a good lode of copper ore; it is 3 ft. wide, composed of capels, fluor-spar, prian, peach, and good stones of copper ore—in fact, the lode is considerably improved. I would call your attention to the junction of the lodes, which will take place about 6 fathoms below the 30, and no doubt but what the lodes at this point will fully satisfy the most sanguine.

GREAT NORTH DOWNS.—J. W. Crase, M. Jenkin, June 4: The ground in Vivian's engine-shaft is hard, and consequently spare for sinking. The lode in the 57, driving east of west of engine-shaft, is 4 ft. wide, worth 9*l.* per fm. The lode in the 57, driving east of Jenkin's shaft, is 2 ft. wide, producing good stones of copper ore, and likely to improve. Pendarve's lode, in Rule's shaft, sinking below the 40, is 3 ft. wide, worth 6*l.* per fm. The lode in Sleggan's shaft, sinking below the 50, has a more promising appearance, and is yielding good stones of ore occasionally. The lode in the 57, driving west of River shaft, has a better appearance; the part carried, 4 ft. wide, is worth 6*l.* per fm. The shaft, has a better appearance; the part carried, 4 ft. wide, is worth 6*l.* per fm. The lode in the River shaft continues to look well, especially in the west end of the shaft, where the ore-bearing part is 2 ft. wide, worth 30*l.* per fathom for 6 ft. In the present bottom it is worth 30*l.* per fm. for the length of shaft, 9 ft. There is nothing new in the 57 cross-cut, south of engine-shaft, or in the 50, north of River shaft. On Thursday last we sold 36 tons of tinstuff, which realised 110*l.* 6s.

GREAT SOUTH CHIVERTON.—

the 130, east of Offord's, is 18 in. wide, worth 10*l.* per fm. for tin. The lode in the 130, west of Fielding's shaft, is unproductive. Nos. 1 and 2 stopes in back of the 130, east of Offord's, are worth respectively 8*l.* and 25*l.* per fm. for tin and copper ore. The lode in the 70, east of Mathew's shaft, is worth 12*l.* per fm. for tin and copper ore.

GRYLLS WHEAL FLORENCE.—Edward Rogers, June 9: The engine-shaft is enlarged, timbered, cased, and divided 4 fathoms below the 30 fathom level. In the cross-cut driving north in the adit level the ground is a little easier for exploring, present price 4*l.* per fm. In the 19 fm. level west the lode is small and poor; we have suspended this end by reason of an accumulated quantity of stuff, which cannot be conveniently drawn to surface until the shaft is put in proper order to the deep adit level. At surface the masons are making good progress with building the engine-house, the walls of which will be up in a few days.

GREAT WHEAL GRYLLS.—E. Rogers, J. Pope, June 9: Michell's Lode: The adit end is driving west of Michell's shaft, by six men, at 2*l.* 5*s.* per fathom; the lode is worth 3*l.* per fathom for tin, and also producing rich stones of copper ore.—Stevens's Lode: In the 27 fm. level we are driving west of pump-shaft, by two men, at 2*l.* 10*s.* per fathom; the lode is 2½ ft. wide, worth 15*l.* per fathom. In the 15 fm. level the lode will just pay for driving, which is 1*l.* per fathom. In the adit level we are driving west on a cross branch. The end at the present time is producing a little tin. We have also commenced to rise up a shaft in Laity's lane, and expect in a few days to sc re down on the middle lode.

GWYDYR PARK.—Capt. Smyth, June 8: The deep adit north, on gossan lode, we are driving by six men, at 8*l.* 10*s.* per fm.; there are spots of lead ore, with a great deal of mundic and blende. No lode taken down in the stopes since last report. We are drawing the 10 tons of lead ore to quay for Mr. Jenkins, purchased at 13*l.* 5*s.* per ton.

HALLENBEAGLE.—J. Edwards, E. Richards, June 4: We have cleared the 36, on Wheal Rose lode, 10 fms. east of the eastern shaft, and find a sink in the bottom of the said level, which we hope to clear up and let on tribute in the coming week. We have cleared this level west of said shaft 25 fms., in the bottom of which we have discovered a very productive lode for copper ore, upwards of 20 fms. in length; the lode is taken away in the back of this level over this run of ore; we shall continue to clear the said level both east and west of the shaft as fast as possible. We shall commence to clear up the old engine-shaft in the coming week. We are still clearing the levels and winzes in the western part of the mine for footway. The engineers are busily engaged in erecting the steam-whim; the bob has been fixed in its place to-day; no time shall be lost in getting this machine to work. The masons are now engaged in building the crusher, house. We have this day let four tribute pitches in bottom of the 36, on the north lode—one at 6*s.* 8*d.*, one at 7*s.* 6*d.*, and two at 9*s.* in 1*l.* On Wheal Rose, or south lode, we have let two pitches in bottom of the 36, west of eastern shaft, at 5*s.* in 1*l.*, to eight men. We have now 28 tributers at work.

HARWOOD.—J. Race, June 4: There is no alteration in the level at Scar Head this week. We have had an improvement in the drift going east in the vein, worth 1 ton of ore per fathom at present, and likely for further improvement; I believe this to be the new vein gone through the other to the south side, as its bearing is 25° south of east, and that was the point of the new vein before the intersection, and if this be so, No. 1 vein will be to the north of us. Stope No. 1 is poor. Stope No. 2 is better, worth 16 cwts. of ore per fathom. Nothing new in Trough level.

HAVAN.—G. Jones, June 7: Eastern Mine, Carriston's Shaft: The 10 east has improved to 1 ton of lead ore per fm., and looks well for further improvement. The 10, west of No. 1 winze, is worth 2 tons per fm. No change worthy of notice in the stopes or other points of operation. Our dressing has been somewhat retarded during the last few days in consequence of the long continuance of dry weather, and our new leat being cut through rocks, and not as yet puddled. I hope, however, with this change of weather that we shall be in full work again to-morrow.

HAWKMOOR.—J. Richards, June 2: Since your last general meeting the drivages in the eastern mine have been suspended, and the operations chiefly confined to stoping the ore ground in the bottom and back of the 25, the lode turning cut from 2 to 3 tons of copper ore per fathom. All operations underground here are for the time suspended, owing to the dry weather, and consequent scarcity of surface water, not enabling the wheels to keep the mine in fork. At West Hawkmoor the adit level on No. 3 lode has been driven about 40 fms.; throughout this distance the lode has varied in size from 1 to 3 ft. wide, for the most part composed of capel, quartz, and mundic; in places, however, it has produced some very good tin ore, more than 14 tons having been sold herefrom, which I think fairly and very encouragingly proves that the lode is one of very great promise, and which cannot fail, in my opinion, to become, on fair and effectual development, a very productive and valuable one. I am glad to say that in about 10 fms. more driving we expect to cut the large cross-course ahead, at and around which I expect a great improvement in the lode; should this prove to be the case there are other lodes also which will participate in the general improvement. The No. 2 lode, about 7 fathoms north of No. 3 lode, offers very great inducements for prosecution, it having produced fine stones of copper ore from time to time, altogether throughout the drivage amounting to 3 or 4 tons of good quality copper ore. The shaft from surface has been communicated since your last general meeting, which has increased the ventilation so much that any number of men can be employed that may be found necessary. Our main object for the time being to force on the drivage on No. 3 lode to intersect the large cross-course ahead, when cross-cuts north to the other lodes will, it is believed, be easy for driving, and should the lodes prove productive, as there is every reason to believe they will, a good and lasting mine will be opened out, that will be very profitable to the proprietary. The repairs of the headweir are completed. Our sales of tin ore amount to more than 14 tons. We shall have about 1 ton for sale again in a fortnight hence. Our last sale of copper ore was 23 tons 18 cwts., at 4*l.* 9*s.* per ton. The stopes in back of the adit level, on No. 3 lode, are continuing to produce some very good work for tin ore.

HINGSTON DOWN CONSOLS.—T. Richards, June 8: We have commenced sinking Bailey's engine-shaft below the 110, in a good course of ore, that will produce 4¼ tons per fm., or for the length of the shaft (13 feet) 9½ tons, worth full 75*l.* per fm. The ground is favourable and easy for progress, and to all appearance the lode will improve in depth. The 110 west is worth 32*l.* per fm. The stope in the back of this level, behind the end, is worth 65*l.* per fm. The 100 west is worth 10*l.* per fm. The 85 is worth 18*l.* per fm. The stope in the back of this level is worth 30*l.* per fm. There is no alteration in any other part of the mines.

KELLY BRAY.—Geo. Rowe, June 8: The lode in the 70 east is 1 ft. wide, chiefly composed of mundic, with a little ore intermixed. The ground in the 60 fm. level cross-cut, driving north, continues highly mineralised, but rather stiff, and slow of progress. The lode in the 40 east, on the north lode, is without change, being still divided by a horse of killas. The lode in the stopes in the bottom of the 25, east from the western shaft, will yield 1¼ ton of ore per fm. There is no change in any other point.

MAUDLIN.—J. Tregay, June 4: Old Mine: The lode in the 70 west end is without much change; blende, mundic, with stones of ore.—West Mine: The shaftmen have been engaged this week cutting and squaring ground for bearers and cistern, which we shall commence putting in on Monday.—Coombe: The ground is favourable for driving, and the killas here is congenial for mineral.

MINERA UNION.—Wm. T. Harris, June 9: Brabner's Shaft: The 80 fathom level, driving north on the footwall side of the lode, is in very promising ground, and from appearance cannot be far from Jones's winze. The level driving on the hanging side of the lode is also in very likely ground for lead. I am daily looking for a great improvement in these levels. We have commenced stoping in the south end of No. 2 winze, which produces some good stones of lead. We are preparing to resume stoping the bottom and back of the 80 by No. 1 winze.—Williams's Shaft: The lode in the 40 is the same as last reported, worth 15 cwts. of lead per fm., and very promising.

MOLLAND.—T. Bennetts, June 8: The lode in the 62 east is 2 ft. wide, composed of quartz and red iron, spotted with grey ore; the ground is favourable for driving. In the rise in the back of this level we have a strong hard lode, 5 ft. wide, composed of quartz, red and brown iron, and grey copper ore, producing of the latter about ⅛ ton per fm. The stopes in the back of the 42 east are looking a little better than last week, producing at present 1¼ ton of ore per fm. The stopes in the back of the north part of the lode in the 32 east are producing 1 ton of ore per fm. I expect we shall have 40 tons of ore dressed and to pile at the end of this week.

NANTEOS.—R. Williams, June 8: There is no alteration here since my last. The adit east is still in disordered ground, but is becoming more firm. The shaft is without any alteration.

NANT-Y-IAGO.—J. Roach: We are still without rain, consequently the 20, as well as the bottom levels, are now under water. We have not been able to draw many kibbles of stuff for the month, therefore the mine is choke full; we shall be obliged to wait for rain before resuming operations for June month. The lode in the eastern end in the 30 is 4 feet wide, and in the same level west is 7 feet wide; at this depth the component parts of the lode are totally altered, when compared with the levels above; here it is composed chiefly of compact carbonate of lime, with a little ore, and some 20 cwts. of blende per fm., whilst in the upper levels carbonate of lime was seldom seen: I consider the change in favour of the mine becoming more productive in depth. In the 20 west the lode is 4½ feet wide, containing a great deal of blende, and excellent stones of lead ore; this appears to be improving rapidly, but we are prevented prosecuting the operation alluded to for want of sufficient surface water to drain the mine. We have got about 2 tons of ore at surface, and 7 or 8 tons underground, and from 30 to 40 tons of good blende, making, with that already dressed and partially dressed, about 100 tons. Independent of this, we have (computed) 10 tons of lead ore in slime, and 25 tons of blende. We shall now erect a cheap round buddle, and make this marketable; in all, say, 120 tons of blende and 20 tons of lead.

NETHER HEARTH.—Wm. Vipond, June 4: We have not cut anything yet in the drift from the old shaft, but we have more rider about the backs or joints of the limestone, and the beds are also rising very much to the east, which leads me to think that we are near a vein. The men in the level have just got the plate to-day below the bottom of the level; this will put us into a better position for driving on quickly, as well as at less cost.

NEW CROW HILL.—W. Trelease, June 8: In the 55 east the lode is 4 feet wide, producing fine stones of ore, very compact, with well-defined walls, and more wet than usual. No. 2 stopes are worth 4 cwts. of lead per fm.; No. 3, 7 cwts. per fm.; No. 4, 5 cwts. per fm. We ought to be driving the 70 east to come in under the ore ground gone through in the 55, and send down a winze to the 70, to open good tribute ground. We are preparing for the leats to the new engine water-wheel, for sinking Louisa's shaft east of our 55 end. This month's ore is sold, No. 1, at 30*l.* 13*s.* per ton of 21 cwts.; No. 2, at 18*l.* 4*s.* per ton; delivered at Grampound-road Station.

NEW ROSEWARNE.—E. George, W. Mitchell, June 8: The lode in the 74, west of Phillips's shaft, is 2 feet wide, composed of spar, killas, and a little tin. The lode in the 74, west of Bickford's, is very much fallen off in value since our last report, now worth 10*l.* per fm.; we expect that this end will again improve as we go west. The lode in the same level east is 2 feet wide, producing stones of copper ore. The lode in the 67, west of Bickford's, is 2 feet wide, worth 10*l.* per fathom. We have driven 11 feet north under the mundic standing in the bottom of the 58, east of Bickford's shaft; we have not cut any lode as yet; we have about 3 feet more to drive. The stope in the back of the 67, west of Bickford's, is worth 10*l.* per fm. The stope in bottom of the 58 west is worth 10*l.* per fm. The stope in bottom of the 58, east of Bickford's, is worth 9*l.* per fm. The lode in the rise, west of Bickford's, is producing saving work for tin. The lode in the winze sinking under the 46, west of Bickford's, is 4 feet wide, producing some good work for tin, and worth about 5*l.* per fm.; we expect to hole this winze next week.

NEW TRELEIGH.—S. Michell, June 8: The most productive and promising parts now in operation are the following—the 70 fm. level, west of Symons's shaft, at the present time will turn out over 3 tons of ore per fathom; the winze below the 50, west of this shaft, is worth 2 tons of ore per fathom; the 80, west of Carr's engine-shaft, will yield 1¼ ton of ore per fathom; and the 70, west of the cross-course, will not produce a less quantity. We have three other places working as stopes, which will average 2 tons of ore per fathom.

NEW WHEAL MARTHA.—H. Rickard, G. Rickard, June 9: The engine-shaft is now down 12 fms. 1 ft. below the 74, by the side of the lode; the killas is of the most favourable description for the production of mineral. We intend sinking to the required depth of 15 fms. for trip-plat, fork, &c., which we hope to accomplish in about six weeks from this time. The lode in the 74 west being the whole width of the end, and more lode standing to the north, which is not taken down, producing arsenical mundic, with small portions of soft friable spar and a little copper ore—a very promising lode. In the same level east the lode is composed principally of floor-spar and mundic, with stones of copper ore, but not to value. The stopes in bottom of the 52, both east and west from No. 1 winze, are worth on an average 20*l.* per fm. for copper ore. We have resumed driving the 20 west from Thomas's shaft, the lode being at present disordered by the cross-course, there being a good grey lode, about 8 fms. in advance of this end, gone down in the bottom of the 10 for 12 fms. in length, worth on an average 25*l.* per fm.; therefore, we anticipate good results as the end gets off from the influence of the cross-course. The tribute department remains without any material alteration. On the whole, we consider the prospects of the mine very encouraging for future development.

NEW WHEAL ROSE.—J. Middleton, Jas. Hammill, jun., June 9: Our lode in the western end continues the same as reported last week, but we hope to be able to report more fully in the course of next week. The eastern end still continues to produce good stones of lead.

NORTH CHIVERTON.—J. Hampton, June 8: The ground at the new engine-shaft continues good, traversed with small fissures of soft quartz and prian. The stratum is a rich looking light blue colour, and I do not think we can be far from the first lode we expect to cut, as there is more lead scattered throughout the shaft. I have never seen, at any time or place, better looking country for lead, and I know all the best lead mines in Cornwall and Devon. There is no alteration to report in the stopes for blende, which are looking well. We are busily engaged at the old and little sump-shaft about the pitwork. The machinery is not being delivered as fast as I could wish, but the engine will be one of the first-class.

NORTH CROFTY.—W. Thomas, jun., June 4: In the winze under the 170 west the lode is worth 15*l.* per fm. In the 170 east the lode is worth 35*l.* per fm. In the winze under the 160 east, now down 7 fms., the lode is worth 25*l.* per fm. In the 160 east the lode is worth 35*l.* per fm. In the stopes above ditto the lode is worth 25*l.* per fm. In the 60 west the lode will produce 4 tons of copper ore per fathom. The stopes above ditto will yield 3 tons per fathom.

NORTH DEVON SILVER-LEAD.—J. Blamey, June 9: I beg to hand you a report of the setting, &c., on Saturday, the 4th inst. In the adit level east we have met with a flookan which has heaved the lode. I have put the men to drive north into the footwall 1 fm., at 4*l.* In the winze sinking below the adit the ground is very hard; set to six men and three boys, 2 fms., at 11*l.* per fm. The lode contains good ore, about 6 in. thick. This winze is underlying very fast, so that we shall not hole to the 10 before the end of the month. In the 10 I have put the men to cut into the footwall about 5 fms. behind the end, where they are breaking some good stones of ore; this must be a caunter lode. I shall drive west upon it, to get under the winze, and at the same time prove the lode. The stope in back of the 20 is producing about 2 tons per fm., and is set to four men and one boy, 3 fms., at 3*l.* 15*s.* per fm. The winze sinking below the 20 still holds good; it is down about 5 fms., and has produced an average of 2½ tons the whole depth. This winze is re-set to four men and one boy, 2 fms., at 7*l.* per fm. I have put six men and one boy to drive the 30 east. There is no change here to report, except that the end is letting out more water. The mine in general is looking well, and the dressing going on favourably.

NORTH DOLCOATH.—J. Vivian, J. Paull, Jun 4: The engine-shaft is now about 3 fathoms below the 70; lode 3½ ft wide, kindly in appearance, and producing very good yellow copper ore. In the 70 east the lode is about 3 ft. wide, but at present unproductive. We have about 8 tons of pretty good copper ore on the mine. The engine, pitwork, &c., are in good order of working, and although the ground in the engine-shaft is harder than usual, we hope to reach the 80 fm. level by the end of August next. The cheque for the pay came to hand in due course, and applied in the proper channel.

NORTH GRAMBLER.—F. Pryor, W. Pascoe, June 8: Eastern Shaft: The sumpmen are engaged cutting a barrow-road in the 85. As soon as this is completed we shall at once case and divide this shaft from the 85 to the 95. The 95 east and west are worth about 1 ton of ore each per fathom. The 85 west is worth about 1 ton of ore per fathom. We have cut down the new shaft 12 fms., and hope to complete the foundation for the engine-house this week, and commence building the engine-house, &c., the early part of next week.

NORTH JANE.—J. Rowe, J. Tamblyn, June 8: Setting Report: Kerr's Shaft: The 40 end to drive west, by three men and three boys, at 14*l.* per fm., worth 4*l.*; we expect an improvement here. The 40 to drive east, by one man and one boy, at 10*l.*: lode about 16 in. wide, worth 4*l.* per fm., and improving. The 20 to drive east, by one man and one boy, at 6*l.* 10*s.*; lode poor. The winze to sink below the 20 west, by four men, at 7*l.* per fm.; lode 15 in. wide, worth 5*l.*; in about 3 fms. further sinking this will communicate with the 30, and open up good tribute ground. The 10 cross-cut to drive north, by two men and two boys, at 4*l.* 10*s.* per fm.—Ready Money Shaft: Two men to drive west on the lode from cross-course, at 2*l.* per fm.; no improvement as yet. Western footway shaft to sink below the adit, by four men, at 5*l.*, worth 4*l.* per fm. We have cleared and secured a shaft, 40 fms. east from Wheal Jane boundary, on their lead lode. In the level about 11 fathoms from surface we have cut into the south wall, and found a branch about 6 in. wide, containing good stones of lead; set to drive east by two men and two boys, at 2*l.* 5*s.* per fm.

NORTH LAXEY.—J. Horsley, June 7: The water in the shaft has increased very quick; last week we had above 5 fms. of water in the shaft on Saturday evening. We have had some showers of rain the beginning of this week, and the water has gone down in the shaft about 5 ft.; if we had a little more rain we should soon get the water out of the shaft again. Captain Rowe has been obliged to put off some of the men this week on account of the water in the mine. The shaftmen and some others are at present removing the crushing-mill and drawing-machine to the new wheel, and also attending to the pumps in the shaft.

NORTH MINERA.—J. Dunkin, June 8: At the eastern shaft we are now down to the 40, and have commenced to cut a plat; after this is is completed we shall drive north to cut the lode at this level; in the last 2 ft. sinking we have sunk through a floor of sandstone, highly charged with carbonate of lime, under which we are again in limestone and spar, with good stones of lead. I consider it very kindly rock for producing lead. We are progressing very well with the cross-cut north, very nice looking ground, and mixed with good strips of lead. The winze sinking under the 15, west of the eastern shaft, the same as reported in my last.

NORTH SHEPHERDS.—T. Richards, June 9: In sinking the engine-shaft 4½ fms. below the 15 fm. level the branch is intersected that was cut in the 15 fm. level cross-cut, 4 fms. north of the shaft. This branch has increased in size from 7 or 8 in. to 15 in. in width, and its present appearance is more favourable for lead ore than it was in the 15 fm. level cross-cut, with less underlie. The 15 fathom level cross-cut is now driven nearly 12 fathoms north of the engine-shaft, and we had fully expected to cut the lode before this; but we can only account for not having done so in consequence of the lode not underlying as was calculated upon. In the adit end, driving east, the lode has a promising appearance for lead ore, being 10 in. wide, composed of soft quartz, mundic, and flookan. In driving the 16 fm. level north on the new lode we find good stones of silver-lead ores mixed in a very congenial gossan, and it would be desirable to sink a shaft on it, by the aid of a flat-rod from the engine, to draw off the water, and so to prove this lode in depth. The lode is 2½ feet wide, and as the end is extended so the level improves in appearance. There are a great number of lodes in this sett, and there is no doubt in my mind that when they are wrought in depth they will be found profitable.

NORTH WHEAL ROBERT.—W. Godden, June 9: The lead lode in the 30 end north is 1 ft. wide, yielding good saving work. The No. 1 south lode, in Bennett's stope above the back of the 42, west of Heard's rise, is worth 1 ton of ore per fm. The No. 4 south lode, in the 52 end, east of Elliott's cross-cut, is 6 ft. wide, composed of capel, quartz, mundic, and copper ore, with a large stream of water issuing from the lode. The No. 1 tin lode, in the 62 end, west of trial shaft, is 5 ft. wide, saving work. All other parts of the mine are looking much the same as for some time past.

OKEL TOR.—W. B. Collom, W. Metherell, June 9: In the 80 the lode in the end has been cut through, and is found to be 12 ft. wide, composed of peach, mundic, quartz, and capel, with stones of ore. We have resumed driving east again by the side of the lode. The lode in the end of the 65 has been cut through, and it is about the same size as the lode in the 80; we are now driving east on the orey part of it, which is 2 ft. wide, yielding from 2 to 3 tons of ore per fm. The lode in the end of the 50 is 2½ ft. wide, yielding about 2½ tons of ore per fm.; the lode is not so large in the end as it was at the last taking down: there is a beautiful soft channel of ground by the side of the lode, and the lode gives every promise of its soon becoming as productive as ever. The lode in the stopes will yield 10 tons of ore per fm. The lode in the western, or Northey's winze, is yielding for its length (9 ft.) 9 tons of ore per fm. All the pitches in the various levels are looking very well. We have sampled at Calstock Quay, and to be sold by public ticketing, 156 tons of ore, the produce of one month's raisings.

PANT-Y-PYDEW.—C. Hester, June 9: Engine-shaft: We are sinking this shaft with all speed. We are now coming into the solid limestone. The joint is mixed with spar and clay, but no lead. Pulley shaft No. 2, called Robert's shaft, is hard for sinking, although something softer than the last joint, 4 inches wide, composed of spar and clay, with a good hanging wall. The Pulley-shaft lode, east and west, runs to the north about 3 yards from the shaft.—Pulley-shaft No. 3: The 70, driving west 18 yards from the sump lode, is 4 ft. wide, composed of chert and clay; this level is returning very good ore, worth ⅛ ton per fathom, and easy for driving.—No. 4 Pulley: This shaft has been sunk to the 33 yard level, and the level cleared nearly to the end of the old workings, 20 yards in from the shaft. In the stope above the level we have found ore, but have not driven on it yet. We are continuing our dressing, and have 4 tons of ore dressed, and more on the floors.

PAR CONSOLS.—F. Puckey, T. Rich, J. Hosking, June 6: Eastern, or Copper part of the Mine—Stephen's Lode: In the rise in the back of the 60, west of Treffry's man-engine shaft, the lode is 2 ft. wide, worth 12*l.* per fathom. In the 70 west the lode is 4 ft. wide, worth 10*l.* per fateom. In the same level east the lode is 2 ft. wide, worth 8*l.* per fathom. The lode in the winze sinking below the 90 west is 2 ft. wide, and worth 9*l.* per fathom.—Middle Lode: In the 70 west the lode is divided by a horse of killas; the north part for 1 ft. wide is composed chiefly of quartz, and containing a little copper. The south part of the lode is 6 in. wide, and worth 5*l.* per fathom—cost for driving 55*s.* In the 80 west the lode is 1 ft. wide, producing good saving work, and looking kindly for improvement. In the 90, east of the cross-cut the lode is 1 ft. wide, producing saving work, but not sufficient to value. In the 10, west of the new shaft, the lode is 1½ ft. wide, and worth 6*l.* per fathom. In the 20 west the lode is 1 ft. wide, but unproductive. In the winze sinking below the 20, on Roger's lode, the lode is 1½ ft. wide, and worth 10*l.* per fathom.—West, or Tin part of the Mine: There is no change of importance to notice in this part of the mine since our last month's report.

PEDN-AN-DREA UNITED.—Wm. Tregay, J. Thomas, June 4: The lode in bottom of the sump-shaft will produce good stones of tin. We are driving in the 130 east on the north part of the lode. The tin in the winze is, so far as yet seen, gone down perpendicular; if it continues so we shall have to cross-cut south nearly the whole of the lode, or about 4 fms., to reach the tinny part of the lode, but the chances are that it may dip away north, and in that case we shall reach it earlier. The lode in the 120 east winze is worth 70*l.* per fm. We are cross-cutting near the 120 east end in search of more lode. Nothing yet reached of any importance. In the 110 west the lode is worth 5*l.* per fathom. In the 100 west winze the lode is worth 5*l.* per fm. In the 100 east end the lode is small, producing stones of tin. In the 100 west the lode is worth 5*l.* per fm. The 90 west, on Martin's, is worth 5*l.* per fm. The 90 west, on Martin's rise, is worth 7*l.* per fm. The 90 west, on Skimmer's, is worth 3*l.* per fm. The 90 west, on engine lode, is producing stones of tin. Cobbler's shaft is worth 7*l.* per fathom. The 90 east is worth 10*l.* per fm. The 68 east is worth 3*l.* per fm. The 68 west is worth 15*l.* per fathom. We sold on Tuesday 10 tons 16 cwts. 1 qr. 14 lbs. of black tin for 652*l.* 3*s.* 2*d.* at the Redruth Smelting Works. The copper ore sold on Thursday week at 6*l.* 6*s.*, weighed this week 23 tons 16 cwts.

PENHALLS.—W. Higgins, J. Nance, June 4: We have had no particular alteration in the engine-shaft during the present week. There are still branches in the 50 cross-cut, north of ditto, yielding a little tin, but not to value. In the 40 cross-cut, south of this shaft, the water is flowing very freely through fissures in the end; the appearances at this point are very kindly for cutting the lode. The different ends and stopes at the flat-rod shaft are looking much as on Saturday last.

PRINCE OF WALES.—W. Gifford, June 7: In sinking Watson's shaft we are progressing very favourably, the ground being easy for sinking, which is principally killas. In the deep adit east, on Good Luck lode, the lode in the present end is from 2½ to 3 ft. wide, composed principally of capel.

PROSPER UNITED.—S. Lean, W. Millett, June 9: The lode in the 80, west of Louisa's shaft, is 2 feet wide, containing saving work for tin. The lode in No. 2 winze, sinking below the 70, is 3 feet wide, producing 2 tons of ore per fathom. The lode in the 80 east north of the elvan, is 18 inches wide, composed principally of spar. The lode in the 74 east has improved, producing 1 ton of ore and rich stones of tin. The 70 west is 4 feet wide, of a kindly appearance. The 60 west is 1 ft. wide, with occasional stones of copper. The lode in Hand's shaft, sinking below the 60, will produce 5 tons of good quality ore per fathom for the length of the shaft (12 feet). The lode in the 70, west of Hill's shaft, is 1 feet wide, and appears to be opening, containing some good quality copper ore. The lode in the 70, east of Hosking's engine-shaft, is worth 8*l.* 8*s.* per fathom for tin.

— S. Lean, June 8: The lode at Hand's shaft, sinking below the 60, is much improved, producing fully 5 tons of good quality ore per fm. for length of the shaft, 12 feet. The lode in the 70, west of Hill's shaft, is increasing in size, and looking more promising for mineral. The 70 east, north of the elvan, will produce 1 ton of ore per fathom. All other places are without change.

ROARING WATER.—Capt. Thomas, June 7: The ground at Gilliman's shaft appears to be changing for the better; it is much more lively, the elvan being mixed up with strong branches of spar, peach, and gossan, with a little black ore in the gunce. If the ground continue as at present I think that we shall reach the 20 fathom level in two months from the time at which the last contract was taken. From the appearance of the ground in the cross-cut driving south from Grady's shaft, and the quantity of water coming from the end, I should not be surprised at the new lode being cut on any day from this time forward. We are intersecting kindly branches of spar, peach, and small spots of yellow ore, which appear to me to augur well for the lode before us. I expect shortly to communicate the caunter adit level with Gilliman's shaft. This work is indispensable for sinking the shaft, without which there would be no ventilation for developing this part of the mine. I have written several parties, trying for a vessel to take away the ore, but up to this time I have not succeeded; however, I hope to do so shortly, as I have written a party with whom I hope to succeed.

ROBOROUGH DOWN TIN AND COPPER.—W. Paull, June 7: As requested, I send you a condensed report of our proceedings in this mining property from the commencement on June 29, 1863. Our first operations were confined to costeaning the soil in different directions, in order to trace off the various lodes that traverse this piece of ground, which embraces an area of upwards of a mile from north to south, and averages from 400 to 500 fathoms from east to west on the course of the different lodes. The first opened upon was the old Turnpike-road lode, which showed in an extension of 60 fathoms in length, a lode varying from 12 feet to 5½ feet in width, from which we broke some good stones of tin, and the general character of which is such as to warrant the opinion that this lode in depth will prove highly productive for tin, is composed, as is usual in this locality, of capel, peach, quartz, a small portion of iron, and tin. We also cleared out an old pit sunk on a caunter lode, which shows such an appearance as fully to warrant an outlay, being 2½ feet wide, underlying south, composed of quartz, mundic, capel, and rich spots of black copper ore. This lode is traced by costeaning upwards of 200 fathoms, and shows a uniform character throughout that distance. Towards the eastern end of the exploration we came across a cross-course of more than ordinary character, composed of flookan and quartz, whose track is directly aiming towards the position of our tin lode (now being worked), that substantiates every opinion hitherto given. I may state that a very kindly copper lode, laid open to the east, forms a junction, or comes in contact, just at the point the cross-course passes through the lode and caunter. You are sensible that a meeting of lodes, taking a longitudinal course of about 21° south of east and north of west, meeting a caunter lode and cross-course at a given point, speaks volumes for future operations. The next point of operation was to trace off the Furze Hill Wood Mine lodes, west of the old men's workings, which has been done to within about 60 fms. of our western boundary. Here we opened up three lodes in close proximity to each other, one 12 feet wide, another 4 feet, and the least 1¼ foot wide, each showing, according to size, a great similarity of character, being composed of capel, peach, quartz, prian, and at the westesn end a gossan, indicating copper. These lodes are the same as were explored extensively upon by the ancient miners for hundreds of fathoms, embracing a scene of their operations through Furze Mine sett to the east, and for scores of fathoms still further east, and through all of which space undeniable evidence is shown that these lodes are tin-producing in great quantities; and from what I have seen of the lodes, I unhesitatingly ask you to at once commence operations in earnest to develope their worth, when I am sure that success is yours. Several minor branches of good appearance were then opened upon, but not many operations carried out. We then commenced to explore the portion of the sett standing on the high ground above the Plymouth turnpike-road, and our efforts had not long been carried out before we opened upon a lode worked upon by the ancient tinners, from which a good pile of tinstuff has been raised; this lode has since taken the name of the North Quarry lode, and on whose course, to the west, we immediately directed our attention, and at 70 fms. to the west commenced a trial shaft on its course, which is sunk about 6 fathoms, a pile of work from which, raised indiscriminately from that space, produced about 40 lbs. of tin ore to the ton of tinstuff. It was then recommended to commence a new engine-shaft, which is sunk 24 fms. 5 ft. 3 in., in ground which the most sceptical cannot refuse the character of being everything congenial for the production of tin in great quantities. A trip-plat is cut in the 20, and the North Quarry lode cut from a cross-cut south near 12 fathoms, and, I am most happy to say, with the most encouraging prospects: we have pierced into it 8 ft. 6 in., and I am of opinion the south killas is just being touched, although not quite certain, but a few days will fully explain. In cross-cutting through the lode we passed through a leader part of it, producing most excellent work, and the fact of there being a paying lode at surface, with every indication that is required to hold out the anticipation of a continuously productive lode, constitutes it as a fact that in the first 20 fathoms sinking you lay open a mine of years' standing as regards returns. The Great Quarry lode stands to the south of this lode about 15 fathoms, with, so far as seen, about the same underlie north; and the fact of this lode for 15 to 18 feet wide producing tin, and its character being altogether that of a massive tin lode of an extraordinary bearing and character, must lead anyone to conclude that, situated as it is in a beautiful clay-slate stratification, it cannot fail to be one of the most standing and tin-producing lodes ever operated upon in this county. A splendid steam-engine, calculated to sink the mine 70 fathoms deep, and driving a number of stamps-heads, equal to what 100 men can break, is near completion, and which the directors purchased at a very low price, will be at work within a fortnight, when it will be demonstrated to some extent what this mine is likely to do. I may finish this report by stating that in the pitch at the junction of the Great Quarry and North Quarry lodes (Newbon's pitch) they have broken in my presence to-day some excellent work, and I am confident this will be a lasting and productive piece of ground; and the stopes to the west of trial shaft showing good work, and hundreds of tons of average tinstuff spalled and ready for the stamps, puts you in a position rarely seen in young mines.

ROSEWARNE CONSOLS.—T. Uren, J. Berryman, June 8: In the 50, east of Ellen's the lode is worth 30*l.* per fathom. In the 60, east of Ellen's, the lode has fallen off, and at present nothing to value, but we think this is only a temporary decline, as we passed through a poor piece of ground over this place in the level above. The tribute pitches are yielding a fair quantity of copper ore.

ROSEWARNE UNITED.—T. Richards, E. Carthew, June 9: The engine-shaft is sunk 5½ fathoms below the 40; lode 18 in. wide, containing stones of black copper ore. The 40 is driven 17 fathoms west of the engine-shaft; lode 2 ft. wide, containing occasional stones of black copper ore. The 40 is driven east 12 fathoms; lode 1½ ft. wide, containing stones of yellow copper ore. The 30, west of the engine-shaft, is at present unproductive. The lode in the 20 east is 18 in. wide, composed chiefly of quartz, spotted with copper ore. Boundary shaft is communicated to the 20, and the men are engaged in cutting plat in it.

SILVER VEIN.—E. Burn, June 9: The Sump: Fair progress has been made during the past week, the ground much the same. The lode in the 50 south has improved a little, at present producing some saving work, but not enough to value. The 50 north is without change to notice. Into the 50 east and west lode we have cut a small hole, and have found good stones of lead and copper ore. This end is extended at present about 3 fathoms from the junction of the north and south lode; we shall drive about 2 fms. more, when we shall cross-cut through the lode, and from the present indications, as far as seen, I have every reason to believe we shall find a productive lode going in this direction. At the new shaft we have cut a quantity of water, which has completely stopped our progress from sinking further for the present. We hope to be able to resume it again after the 40 fm. level is driven under, which, I consider, will drain it. We have 10 fms. more to drive the 40 to reach the shaft. The water in the mine has very much increased in the last few days. I would advise some attention to our pitwork, which should be done after reaching the 60 fm. level, and I calculate it will take us about nine weeks more to sink deep enough for fixing pitwork in the 60 level.

SOUTH CARADON WHEAL HOOPER.—W. C. Cock, June 4: The water flowing from the lode cut in the 54 cross-cut south on Thursday last is abated a little, and I hope by the time we have finished the enlargement of the plat in the level that the water will be in fork again to the 90, so as to enable us again to resume the driving of that end. We are continuing the 54 cross-cut south in search of other lodes. I would recommend driving on the lode just cut as soon as the cross-cut is sufficiently advanced to admit of its being done, which will probably be in about a fortnight.

SOUTH CARN BREA.—I. Richards, June 7: Flat-rod Shaft: The lode in the 118 is 3 ft. wide, composed of capel, quartz, peach, mundic, and tin ore, worth 7*l.* per fm. The lode in the 108 east is 4½ ft. wide, composed of capel, peach, mundic, quartz, a little copper ore and tin, worth 8*l.* per fm. The lode in the 108 west is 4 ft. wide, and consists principally of capel, with a small proportion of tin ore. In William's cross-cut, driving north at the 108, the ground is hard, consequently the progress is slow. In the 108, west of William's cross-cut, on No. 2 north lode, the lode is 3½ ft. wide, composed of capel, peach, quartz, and mundic. The lode in the 98 east is 4 ft. wide, composed of capel, quartz, peach, mundic, and a little tin ore. In Richard's winze, in the bottom of the 88 west, on the north part of the lode, it is 3½ ft. wide, composed of capel, peach, mundic, and a little tin ore. The lode in the 40 west is 3 ft. wide, composed of capel, quartz, mundic, and a little tin ore. The lode in the 30 west is 2½ ft. wide, composed of capel, peach, quartz, a little tin, and produces occasionally good stones of black oxide of copper ore.—New Shaft: In Bray's cross-cut north, at the 88 east, the ground is a little more favourable for driving. In the 88 east, and east of Bray's cross-cut, on No. 1 north lode, the lode, 3½ ft. wide being carried, consists of capel, peach, mundic, and a little tin ore.

SOUTH DARREN.—J. Boundy, June 7: No lode has been taken down in the 40 west since my report for the meeting, consequently there is no change to notice in this end. The lode in 30 west continues about the same as last reported, worth for lead and copper 35*l.* per fm.; the water continuing to flow freely from the end, which is a good indication. The lode in the 20 west has a much better appearance than it had when last reported on; I think as we extend west it will further improve. The lode in the shallow adit west is just the same in appearance as last reported, a large promising lode, and from its present appearance I have every reason to expect an improvement. No other change to notice. All the surface operations are progressing.

SOUTH DOLCOATH.—W. Roberts, June 8: The following tutwork bargains were set on Friday last:—The 70 fm. level cross-cut to drive north by six men, at 6*l.* per fm. The 36 east, by two men, at 1*l.* The 36 west, by four men, at 5*l.* The 24 east, by two men, at 9*l.*; and the same level west, by two men, at 3*l.* per fm.

SOUTH EXMOUTH.—J. P. Nicholls, June 8: The ground in the 75 cross-cut is a little easier for progress than it has been. The winze in bottom of the 60 is sunk about 6 fathoms; the lode is now from 2½ to 3 ft. wide, yielding about 5 cwts. of lead ore per fathom. There is no alteration worthy of notice in any other part of the mine since last reported on.

SOUTH GORLAND.—J. S. Phillips, June 4: The western whim-shaft, for communicating with the rise from the 40, is being sunk at 7*l.* 10*s.* per fm. in the lode, which is large, and promising for greater yield of copper ores than the occasional stones now found

The Carbona at the 20, east of Giesler's, is worth 8*l.* per fm. The Carbona at Charles Frederick's is worth 5*l.* per fm.

ST. JUST CONSOLS.—W. Williams, June 8: We have been extending the 10 west from the engine-shaft; the new shaft is down on the end; we have in the end a very kindly tin lode, 18 in. wide, the appearance of which is so very encouraging, that we have set the engine-shaft to sink 10 fms. deeper; we shall push on this with all speed; hitherto we have been drawing our stuff by winze kibbles, we are now about to erect a horse-whim. In extending on the Guide lode we find a good branch of tin crossing it, on which we intend to open, to see if it holds away.

ST. JUST UNITED.—J. Carthew, June 8: Saturday last was our pay and setting-day. All our bargains, both tutwork and tribute, went off well. A few particulars of the setting I herewith give you.—Engine-shaft, Saveall's Lode: The 62 or bottom level to drive west, by two men, at 52*s.*, worth 70*s.* per fm. The stopes over this level, by three men, at 28*s.*, worth 100*s.* per fm. We have cleared the 62 to the end, east of engine-shaft, and am very glad to say that we have on this one lode good paying tin ground for 140 fms. in length, and tin holding away in each end east and west. When the time arrives for sinking the engine-shaft I have not the least doubt but that we shall find good tin ground holding down just at present; having so much tin ground discovered above, we do not require sinking here. The 62 to drive west of the winze, by two men, at 58*s.*; lode worth 110*s.* per fm. The 62, east of winze, by two men, at 45*s.*; lode worth 100*s.* per fathom. The 50, west of engine-shaft, by two men, at 70*s.*; lode worth 160*s.* per fathom. The 50, east of engine-shaft, by two men, at 58*s.*; lode worth 140*s.* per fm. The 16, east of engine-shaft, by two men, at 45*s.*; lode worth 80*s.* per fm. This lode, which varies from 2 to 5 ft. wide, never before looked so well.—North Lode: The shaft on this lode we are sinking by four men; lode worth 5*l.* per fathom; when this shaft is down 12 fms., and levels extended, we shall be able to work this ground on tribute to a good profit. The 20, east from this shaft, by two men, at 70*s.* per fm.; lode worth 80*s.* per fathom.—Wheal Owl Lode: The 40 south, by three men; lode worth 40*s.* per fm. The 40 north, by two men; lode worth 63*s.* per fm. Stoping over the 62, by four men, at 37*s.* 6*d.*; worth for tin 80*s.* per fm.—Wheal Dower Lode: Sinking a winze under the 40, by two men, at 40*s.*; worth 50*s.* per fathom. Stoping over the 20, by two men, at 37*s.* 6*d.*; lode worth 80*s.* per fm. Besides all these men breaking tin on tribute, we have set 55 pitches on tribute to 130 men and six boys, with every prospect of raising a good quantity of tin.

TIN HILL.—J. Martyn, June 8: No. 3 lode has much improved, and No. 2 lode is still good. We are now down with the new engine-shaft about 10 fms., and have plenty of water, but nothing can be done until the engine goes to work. I have let another tribute pitch on No. 3 lode, at 5*s.* in 1*l.* All other work is progressing well.

TORBAY HEMATITE IRON.—S. Paull, June 6: At your request, I beg to hand you the following report of the present appearances and future prospects of this mine; and, should it not be so full of particulars of our future proceedings as you might expect, I hope some little excuse may be found in the fact of my having only a week since taken the place of local manager, and commenced operations on Wednesday last. I find the mine opened up at surface in a large deposit of hematite iron, and iron bearing a matrix of lode in which rich deposits of iron ore are thickly disseminated, without any regularity of position, showing that so far the most prudent way to develope its resources is to fairly stope off the lode from surface, thus availing ourselves of every ton of ore that may be touched, and at the same time clearing off the attle, so as not to impede future operations. In the lode thus taken away we are likely to strike into rich deposits of kidney iron of a very high percentage, which is commonly found in detached stones of from 60 to 80 lbs. weight to the smallest pebble. The general character of the lode warrants the opinion that great quantities of ore can be returned from this mine after it is fairly put in order; and, what is commonly the case in change of management, every available ton of iron to be got out at a small expense is taken away. We shall, however, send off so much ore as we possibly can, and at the same time clear off the attle, in order to have mine in good working condition. At the Derick shaft in full work hauling stuff; and had this shaft been 2 fms. deeper a good stope of ore could have been taken away to advantage. A new shaft is sunk near 14 fathoms deep in the limestone, near to the eastern boundary, and which is supposed to take the drift of the iron ore from the adjoining mine, from which such immense quantities have been sold. A ship sailed from this place on Saturday with 109 tons 15 cwts. of ore, and we commence loading another of 150 tons to-morrow. Looking over every circumstance in connection with this mine, I give it you as my firm conviction that the mine being carried out with economy and perseverance will be second to none in returns. The quantity of ore shipped to the different ports for last month was above 1000 tons, leaving a profit for the month of about 300*l.* No doubt the month of June will be considerably more.

TOLCARNE.—June 8: Field's Lode: In the engine-shaft, below the 50 fm. level, the lode has not been taken down since last report. The lode in the 50 fm. level east is large and kindly, and a winze has been communicated from this level to the 40 fathom level, which has given good ventilation to this end, and also to the cross-cut driving towards the north lode, in which the ground is hard. The 50, 40, 20, and 10 fm. levels east are unproductive. The adit level east is in advance of the deeper levels, and the lode is very kindly, being a beautiful gossan, with good stones of copper ore.—North Lode: The lode in the 40 fm. level east is 2 feet wide, yielding 3 tons of good ore per fm. The lode in the 40 fm. level west is producing 1 ton of ore per fm.; the lode in the 30 fm. level east is yielding 1 ton per fathom. The winze sinking below the 30 fathom level is yielding 1 ton per fathom. The lode in the 20 fathom level east is poor.—King's Lode: In the 24 fathom levels east and west the lode is composed principally of fluor-spar. In the 12 fm. level west the lode is 15 in. wide, and composed of gossan and spar. The adit level cross-cut south is moderately easy, and letting out much water.

TOLVADDEN.—F. Gundry, June 9: The lode at the 93, east of the engine-shaft, is still looking as well as ever, yielding 5 tons of ore per fm. The shaftmen have been engaged this week stoping the back of ditto; the ore course here is yielding from 3 to 4 tons of ore per fm. No. 1 winze, which we are sinking below the 83, east of the engine-shaft, has been sunk in the present week 2 feet, but still we have a little water to contend with; it will yield 3 tons of ore per fathom. At No. 2 winze, which we are sinking below the 83, east of the last-named winze; the lode will yield 3 tons of ore per fm. There is no change in any other part of the mine to speak of.

TRELOWETH.—T. Richards, June 9: The shaftmen have been engaged in fixing a new plunger in the 154, which will be completed this week. The lode in the 154, east of the engine-shaft, is producing stones of yellow copper ore. The lode in the 144 east is worth 10*l.* per fm. The lode in the sump-winze sinking below the 144 is worth, for 9 feet long, 35*l.* per fm. for copper ore. The lode in the 144, driving west of the sump-winze, on the north part, is worth 4*l.* per fm. for copper ore. The lode in the 134 east is worth 4*l.* per fm. for copper ore. We have cut into the lode in the 134, west of the engine-shaft, about 5 feet; the lode is of a kindly appearance, yielding stones of copper ore, but not sufficient to value. The lode in the 124, east of the engine-shaft, is worth 10*l.* per fm. There is no lode yet cut in either of the cross-cuts.

TRENCROM.—W. Arthur, H. Woolcock, June 9: The lode in the 90, west of Giesler's engine-shaft is 8 in. wide, producing a little tin. The lode in the 110, east of Hollow's, is 1 ft. wide, with occasional stones of tin. The lode in the 100, east of Hollow's shaft, is 8 in. wide, saving work for tin. The lode in 90, east of Hollow's, is 18 in. wide, worth 6*l.* per fm. The lode in the 80, east of Hollow's, is 1 ft. wide, worth 2*l.* per fm. The lode in the 70, east of Hollow's, is still disordered by a horse of granite. The lode in the 60, east of Hollow's, is 10 in. wide, saving work for tin. The lode in the 50, east of Hollow's, is 1 ft. wide, worth 2*l.* per fm. The lode in the 40, east of Hollow's, is disordered by a horse of granite.—Flat-rod Shaft: The lode in the 60, east of shaft, is 8 in. wide, worth 3*l.* per fathom. The lode in the 60, west of said shaft, is 1 ft. wide, worth 3*l.* per fathom.

TREVENEN AND TREMENHEERE.—J. Medlen, W. Tippett, C. George, June 7: The lode in the new sump-shaft, sinking below the 150, is worth 35*l.* per fm. The level going east of this shaft is worth 7*l.* per fm. The stope in the back over this end is also worth 7*l.* per fm.; the lode in this level, driving west, is worth 8*l.* per fm. The stope in the back over this level is worth 10*l.* per fathom. The lode in a new winze sinking below the 140, east of new sump, is worth 9*l.* per fm.; this level driving east of Tremayne's cross-cut, on the south part of the lode, yields a little tin, but not enough to value. The lode in Trevenen engine-shaft, below the 150, is reduced in quality, now worth 16*l.* per fathom; this level, driving west, is by the side of the lode, no lode taken down since last report. No. 1 stope, in this back, is worth 6*l.* per fm. No. 2 is worth 8*l.* per fm. The 150 going east is poor, but a few feet more will bring us entirely into the attle. No change in the 130 cross-cut north; this remark will apply to the cross-cut south in this level, also to the 40, 70, and 100 fathom levels. No change in the tribute department to call for remark since last report.

TREWEATHA.—T. Foote, J. Scobie, June 7: The lode in the 40 south is divided by a horse of killas; each part of the lode is producing saving work. From the present appearance of the end we expect to have the lode again shortly, where no doubt it will be more productive. There are two stopes in the back of this level producing 3 and 4 cwts. of lead per fathom. We set to drive the 40 north last Saturday. The two stopes in this level will yield 5 and 6 cwts. of lead per fathom. We continue to drive by the side of the lode in the 30 south. The ground is hard for driving. The two stopes in the back of this level are each yielding 7 cwts. of lead per fathom.

TRUMPET UNITED.—G. R. Odgers, June 4: Setting Report: The 60 west, to four men, at 6*l.* per fathom; lode from 8 to 10 in. wide, of quartz, &c., with stones of tin—a kindly lode. The 50 west, to two men, at 6*l.* per fm.; lode 10 in. wide, yielding saving work for tin. The 38 west, to two men, at 6*l.* 10*s.* per fm.; lode split into branches, but yielding good tinny work. The 25 west, to four men, at 10*l.* 10*s.* per fm.; lode at present small, but which has passed through a good branch of tin. The 15 west, to four men, at 11*l.* 10*s.* per fm.; lode small, but yielding good work for tin. The stopes below the 15, to two men, at 5*l.* 15*s.* per fm.; lode worth 7*l.* per fm. The stope above the 15, by four men, at 5*l.* 10*s.* per fm.; lode worth 8*l.* per fm. The winze below the 15, by four men, at 10*l.* 10*s.* per fm.; lode worth full 10*l.* per fm.

TYNE HEAD.—G. Millican, June 4: I send pay bill for the 13 fms. cut across the backbone or great sulphur vein. The vein is still extremely hard, with more sulphur, and occasionally pieces of copper and lead. Our operations are now entirely confined to cutting through this immense vein.

VALE OF TOWY.—A. Waters, T. Harvey, June 7: In the bottom end, north of Clay's engine-shaft, the lode is 6 ft. wide, worth 1 ton of rich blende per fathom. In the 124, driving south of said shaft, the lode continues to improve in character, and there is a likelihood of softer ground making its appearance shortly. In the 110, south of Clay's, the lode is as last reported, worth 2 tons of blende per fm. Field's shaft will be down to the 110 this week; the lode in present bottom rich in blende; next week we shall commence driving north and south of this shaft in a good lode. The 100, south of Field's, is opening tribute.—Tribute: Beckerley's pitch in the 124 south is worth 3 tons of blende per fm. James's pitch in the 110, south of winze, is worth 2 tons per fm. Lewis's pitch in the 110, south of cross-course, is worth 1 ton per fm. Jones's pitch in the 100, north of Field's, is worth 3 tons per fm. Burn's pitch in the 100, south of Wenall's boundary, is worth 1½ ton per fathom. We shall sample 2 tons of rich blende on Saturday next.

WEST BASSET.—Wm. Roberts, June 8: The sinking of Thomas's engine-shaft under the 154 fm. level is progressing favourably; in it the lode is 7 ft. wide, with occasional stones of ore, but in the very bottom a part of the lode appears to be underlying south very fast, while the north or orey part continues perpendicular. At the 134, north from Grenville's shaft, a lode has lately been intersected, and which has been cut into 4 ft. without reaching the north wall; this lode has a promising appearance, and produces stones of good ore. In the 124 west the lode is 1 ft. wide, at present unproductive. In the winze sinking under the 114, which is a few fathoms beyond the 124, the lode is 2½ ft. wide, producing nearly 1 ton of ore per fm. In the 104 west the lode is 6 ft. wide, chiefly capels and white spar.—Middle Lode: In the 52 west the lode is 1 ft. wide, good work for tin. In the 52 east, the lode is 1½ ft. wide, saving work for tin. In other parts there is no alteration to notice.

WEST CARADON.—W. Johns, R. Trathen, June 4: The lode in the 60, east of cross-cut, and north of Fox's shaft, still maintains a good appearance, worth about 1½ ton per fm.; and, judging from the character of the ore, we think it to be Vivian's south lode. The end west of Hallett's shaft, on Menadue lode, is under the winze sinking below the 27; each is and have been opening out tribute ground, but in order to put up a rise we are compelled to suspend the driving of the end for the present, and hope to effect a communication as well as good ventilation by our next setting-day, and again resume driving the end. There is but very little alteration in any other tutwork bargains to mention. The ground in the 40 cross-cut, south of Pryor's shaft, is very hard, consequently the progress is slow, otherwise the lode would have been intersected ere this. Our pay and setting passed off much the same as usual. We set the usual number of tutwork bargains and tribute pitches.

WEST CONDURROW.—F. Gilbert, June 9: The following is our setting report:—Bickford's shaft to sink below the deep adit level, by six men, at 9*l.* 10*s.* per fathom The 36 fm. level to drive east of Purser's shaft, by three men and four boys, at 4*l.* 7*s.* per fathom; the lode in the end is 20 in. wide, having a mixture of spar, decomposed granite, and mundic, with occasional small branches of yellow copper ore. The 24 to drive east of Purser's shaft, by two men and two boys, at 3*l.* 10*s.* per fathom; lode in the end 18 in. wide, consisting of flo-kan, spar, and killas, and producing occasional good stones of yellow copper ore. The 24 fm. level to drive south on the cross-course, by four men, at 4*l.* 15*s.* per fathom. A winze to sink below the 24, by six men, at 7*l.* per fathom; the lode in the winze is small, but highly charged with mundic. The deep adit level to drive north on the cross-course, by two men, at 2*l.* 8*s.* per fathom. We expect to intersect a lode at this point in about 16 fathoms driving.

WEST FOWEY CONSOLS.—F. Puckey, E. Dunstan, June 6: Eastern, or Copper Part of the Mine: In the 130, east of Deeble's shaft, on Deeble's lode, the lode is 2 feet wide, composed of quartz, prian, mundic, and copper, worth for the latter 6*l.* per fathom. In the same level west the lode is 1½ ft. wide, producing a little ore, but not sufficient to value. We have communicated the winze sinking below the 120 with the 130, and set the ground on tribute. In the 130 east, on Protection lode, the lode is very small and poor.—Western, or Tin Part: Puckey's north shaft is sunk below the 135, on the course of the lode, 10 fathoms; the lode in this shaft is 7 feet wide, and worth for the length of the shaft (12 feet) 20*l.* per fm. In the 150 west the lode is 4 ft. wide, worth 16*l.* per fm.; the lode in the rise in back of this level is 6 feet wide, worth 15*l.* per fm. The other parts of the mine are without alteration since last reported.

WEST PAR CONSOLS.—W. Woolcock, June 9: We have suspended the driving of the 80 end for a short time, in consequence of the air being very bad, and put the men to rise in the back of this level, about 9 feet behind the present end, for ventilation, where the lode is 2 feet wide—saving work for tin. We shall also sink in the bottom of the 65, to communicate with the 80 rise, as soon as possible. The lode in the back of the 65 is 2 ft. wide, yielding 3 cwts. of tin per 100 sacks, with a branch of copper ore on the north part, 8 inches wide, of rich quality. The lode in the western stope, in the bottom of the 65, is 3 feet wide, still of a very promising character, producing 1¼ cwt. of tin per 100 sacks, with a good branch of black and grey copper ore on the north part. The lode in the eastern stope, in the bottom of the 65, is 1¼ ft. wide, yielding 3½ cwts. of tin per 100 sacks. We shall sample at Par next week about 130*l.* worth of copper ore.

WEST SHARP TOR.—W. Richards, June 7: The ground in the 162 west continues much the same for progress; the part of the lode carried contains quartz, capel, mundic, iron, and a little grey copper ore occasionally. The part of the lode now being cut into in No. 4 cross-cut, in the 162 west, is composed of capel, quartz, iron, and a little rich ore now and then. The ground in the 162 east is still hard, but the branch contains some rich yellow copper ore occasionally. We met with a cross branch in the adit level on Saturday last, which had the effect of dividing the granite from the elvan, the ground in the present end being granite, and equally as favourable for progress as the elvan course passed through. There is a little more water issuing from the end at present. We shall cross-cut the lode next month.

WEST WHEAL MARTHA.—H. Rickard, June 9: The lode in the 40, west from Kelly Hole, is producing stones of ore, with an improved appearance, the ground being more favourable for driving. There is no alteration in the 40, west from western shaft, since last week. In the north adit level the lode is presenting a very kindly appearance, being composed of gossan, spar, and mundic, about 2 feet wide. The tribute department is much as usual, yielding fair quantities of copper ore.

WEST WHEAL TREVELYAN.—J. Harris, June 4: The lode in the 68 fm. level, east of Charles's shaft, is 3 ft. wide, of quartz, peach, and prian, with stones of good grey ore. In the 68, west of Charles's shaft, the lode is 3 ft. wide, principally of quartz, with occasional stones of ore.

WEST WHEAL VOR.—J. Southey, June 8: The different operations at surface are going on with all speed. Nothing worthy of notice in the underground department since last reported on.

WHEAL AGAR.—W. Roberts, June 8: The 110 cross-cut, driving south from Windstow shaft, is being pushed on as fast as the nature of the ground will admit. In the winze sinking under the 100 the lode is 4 ft. wide, producing stones of ore and saving work for tin. The 100 east produces stones of ore, lode 3 ft. wide.—Western Engine-shaft: In the 100 east the lode is 3 ft. wide, with occasional stones of ore. In the 90 east the lode is 1 ft. wide, at present unproductive. The sinking of the old whim-shaft is progressing very satisfactorily; in it the lode is 1¼ ft. wide, having a promising appearance, but at present unproductive. In the 90 east the lode is small. In the 80 east the lode altogether is 10 ft. wide, producing good stones of ore.—Dobree's Lode: The sinking of the winze below the 80 is going on favourably, and in a little while we hope to get it holed to the 90 fm. level, which will make the ventilation complete for both levels, and enable us to drive the 90 both east and west of the cross-cut, where we expect to open tribute ground.

WHEAL CREBOR.—J. Gifford, June 7: In Cock's shaft the cross-course is now in the eastern end; the lode in the western end is 7 ft. wide, composed chiefly of quartz and capels, with occasional stones of muncic and copper ore; although not enough to value it is a very kindly lode. In the 96 west the lode is 5 ft. wide, 2 ft. of the south part being orey, yielding 1 ton per fm. In the 96 east the lode is 2½ ft. wide, yielding 1 ton of copper ore per fm. In the 84 east the lode is 2½ ft. wide, yielding 2 tons of copper ore per fm. The stope in the back of the 84 east is yielding 2½ tons per fm. The lode in the winze in bottom of the 84 east is 6 ft. wide, yielding 7 tons of copper ore, worth from 35*l.* to 40*l.* per fm.; this winze is full 14 fms. in advance of the 96, and no water, which speaks well for the course of ore holding down. In the 72 east we are driving by the side of the lode. The stope in back of the 72 is yielding 2 tons of copper ore per fathom.

WHEAL CREBOR.—Capt. Gifford, June 9: The lode in the winze in bottom of the 84 east is daily improving; now 6 feet wide, yielding 8 tons of copper per fm., worth 45*l.* per fm. No alteration in any of the ends or stopes since Tuesday's report.

WHEAL EDWARD.—Geo. Rowe, June 4: The lode in the 105 west has not been taken down since last reported on, consequently there is no change at this point of operations. The lode in the 92 west is improving in character, and producing some good saving work. The lode in the winze sinking below the 81 has also improved, worth 10*l.* per fathom, but the water is so powerful for manual labour that it renders our progress in sinking slow. The lode in the 61 west has not been taken down for the past week.—New South Lode: The lode in the 50 west has a little improved, and producing occasional stones of ore. The stope in back of the same level, east from cross-cut, is looking better, yielding 3 tons of ore per fathom.

WHEAL EMILY HENRIETTA.—J. Daw, June 7: In the 68, west of flat-rod shaft, the lode is 3 ft. wide, composed of soft spar, peach, and mundic. In the 56 west the lode is 3 ft. wide, producing good stones of copper ore. In the 56 east the lode is 2 ft. wide, composed of jack, spar, and stones of copper ore. In the stopes in bottom of the 44 the lode is 2 ft. wide, producing 1¼ ton of ore, or worth 10*l.* per fm. In the stopes in back of the 44 the lode is worth 8*l.* per fm. for copper ore.

WHEAL ESTHER.—James Richards, June 9: A very important improvement has taken place in No. 3 lode: the same has been cut into full 12 ft. wide, and produces excellent work for tin from wall to wall; this is a most important discovery, and has greatly enhanced the value of this property; there is on this lode alone profitable ground laid open for years to come. I am glad to say that on Friday last about 1 ton 10 cwts. of tin was sold, and in one month from this time there will be about 2 tons more ready for sale, and will be further augmented monthly. Whatever the shares in this mine were worth one week ago, they are worth five times that amount now.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, June 4: We have got into the lode at the 120 fm. level 3 ft., and no north wall; the lode so far as seen is precisely of the same character as seen in the upper levels, but so far as seen we cannot at present place a value on it. We are getting on very well with the 110 cross-cut, and the ground so far as seen is full of branches of spar, therefore indicating more lode before us. The lode in the winze sinking below the 100 is worth full 50*l.* per fm.—a pretty lode. The lode in the rise above the 90 east is worth full 15*l.* per fm. The stope above the 100 is worth full 60*l.* per fm. The stope above the 90 is worth full 40*l.* per fm. We have holed the shaft from the 80 to the 66, and shall shortly commence to rise above the 66 against the new shaft. The stamps are working very well.

— G. R. Odgers, Wm. Bennetts, June 9: We are getting on very well with the work and the different places underground, and we see no change to report since our advice of Saturday.

WHEAL GRYLLS.—E. Rogers, J. Pope, June 9: Fisher's Lode: The 40 is driving east of Annie's engine-shaft by six men, at 6*l.* per fm.; the lode is worth 7*l.* per fm. The 30 is driving east of Gryll's shaft by six men, at 3*l.* 5*s.* per fm.; the lode is 3 feet wide, worth 12*l.* per fm. The adit level is driving west of Jones's shaft by two men, at 2*l.* 10*s.* per fm.; the lode is worth 4*l.* per fm. The 15 end is driving west of King's shaft by one man, at 10*s.* in 1*l.* for tin, and 10*s.* per fm.; the lode is 2 ft. wide, worth 3*l.* 10*s.* per fm. Clarke's shaft is down 4 fms. from surface, and is sinking by four men, at 10*s.* per fm.—Standard Lode: In the 15 end, east of the eastern shaft, the lode is in a disordered state, and unproductive; driving by four men, at 2*l.* 15*s.* per fathom.—Georgia Lode: In the back of the 30 we are rising by six men, at 2*l.* 15*s.* per fm.; the lode is 3½ ft. wide, producing stones of tin. In our tribute department the setting for the present month is as follows:—Six men at 6*s.* 8*d.* in 1*l.*, two men at 8*s.*, five men at 9*s.*, thirteen men at 10*s.*, eight men at 12*s.*, and seven men at 13*s.* 4*d.* in 1*l.*, the tributers paying all expenses.

WHEAL HARRIETT.—S. Williams, June 4: The north part of the main lode, in the 115 west end, is unproductive. The north lode, in the 115 west end, is producing stones of copper ore. The stope west from winze, below the 100, is worth about 10*l.* per fathom for tin. Alexander's lode, in the 24 west end, is 2 ft. wide, producing stones of copper ore. The lode in the adit east end is unproductive. The north lode, in the adit east end, is producing stones of ore, but not to value.

WHEAL HOPE.—W. H. Reynolds, June 7: The ground in the shaft is much improved, so that we are making good progress in sinking, and the lode is yielding good saving work for lead. The lode in the 75 west is now yielding some good lead work, and we think that this end is getting into the bunch of lead driven through at the level above for 17 fms. long. The 65 west, on south part of the lode, is worth 12*l.* per fm., and the north part of the lode is yielding work for lead, while the winze sinking below this level is worth 15*l.* per fm. The 58 west is worth 10*l.* per fm. The mine is improving, and when we get the winze holed from the 65 to the 75 we shall have a good extent of ore ground to take away.

WHEAL IDA.—F. C. Harpur, June 7: The engine-shaft is sunk, by nine men, 21 fms. 1 ft. 6 in. below the surface, at which point the ground continues of a very favourable character for the production of lead in depth, consisting of clay-slate, traversed by numerous small veins, or branches, varying in breadth from 6 to 10 inches, carrying mundic, prian, and quartz, intermixed with spots of silver-lead; last price for sinking 20*l.* per fathom. The shaft is now so deep, and the water so greatly increased of late, that we are compelled to suspend the sinking of it for the present; it is not only very expensive, but exceedingly dangerous for us to attempt to go deeper with our present small lift of pumps; our attention will, therefore, now be directed to the removal and erection of a 30-inch cylinder steam-engine with all possible dispatch. We have already made the necessary arrangements for the purchase of one, which we consider suitable for the development of the mine. All necessary buildings are erected, such as office, smith and carpenters' shops, material-house, changing-house, &c.

WHEAL KITTY (St. Agnes).—S. Davey, William Polkinghorne, June 4: We have for the present suspended the driving of the 100, east of engine-shaft, and engaged the men to cut piat, and clear and secure the 82, west of Hoigate's shaft, that it may be driven on the old lode. No change worthy of notice has taken place in the 54, west of this shaft, since our last report.—New Shaft, Pryor's Lode: The lode in the 65, east of this shaft, is showing an improved appearance, being full 2 ft. wide, and worth for tin 10*l.* per fm. In ditto, driving west, the lode is 3 ft. wide, worth for tin 12*l.* per fm. The lode in the 54, east of this shaft, is a little disordered by the cross-course; in this level, driving west of ditto, it is 2 ft. wide, worth for tin 10*l.* per fathom. The lode in the 44, driving east of this shaft, is 2 ft. wide, worth for tin 10*l.* per fm.; and in ditto, driving west, it is 3 ft. wide, worth for tin 11*l.* per fm. The lode in the 34, driving east of this shaft, is 1½ ft. wide, worth for tin 8*l.* per fm. In the winze sinking below ditto the lode is 2 ft. wide, worth for tin 9*l.* per fm.; and in this level, driving west of shaft, it is 3½ ft. wide, worth for tin 16*l.* per fm. The ground in the 24 cross-cut, and in the new shaft sinking below the 10, is without any change.

WHEAL MARGERY.—R. James, W. Rogers, June 8: At Wellesley's engine-shaft, sinking below the 110, also in the 110 east, and in the 70 west, the lode is not yielding sufficient ore to value.—American Shaft: In the 132 east the lode is worth 10*l.* per fm. No lode taken down in the 132 west. The skip-road will be fixed from the 122 to the 132, and ready to send the skip to the bottom by to-morrow night. We have eight men cutting piat and driving the 132 east, and six men for the 132 west; and, from present appearances, we shall lay open the levels quick, the ground being easy for opening, at 4*l.* 10*s.* to 5*l.* per fm. In the 122 east the lode is worth 4*l.* per fathom. No. 1 stope is worth 6*l.* per fathom. No. 2 stope is worth 8*l.* per fm.; No. 3 stope, 6*l.* per fm.; No. 4 stope, 4*l.* per fm. In the 122 west the lode is worth 5*l.* per fm.: No. 1 stope, in back, 5*l.* per fm.; No. 2 stope, 12*l.* per fm.; No. 3 stope, 8*l.* per fm.; No. 4 stope, 4*l.* per fm. and No. 5 stope, 14*l.* per fm. The ground is harder in these stopes, therefore we are not raising so much ore. In the 110 east the lode is worth 8*l.* per fm. The stope in back is worth 4*l.* per fm. In the 110 west the lode is worth 3*l.* per fathom. No. 1 stope, in back, is worth 4*l.* per fm.; No. 2 stope, 8*l.* per fm. In the 110 east the lode is worth 6*l.* per fm.; the stope in back is worth 5*l.* per fm. In the 100 west the lode is poor. The stope in back is worth 5*l.* per fm. No other change to report during the week.

WHEAL PAR.—J. Beard, June 7: Both ends driving on Jenkin's lode are very much improved both in size and quality. We have good ground in the cross-cuts. The new stopes on Hoskin's lode are turning out well. The ground in the bottom of engine-shaft is improved, and very much better for sinking. We have got the stamps-axle and some of the castings on the mine.

WHEAL POLLARD.—W. C. Cock, June 7: We are making fair progress in cutting the plat, &c.; after this is completed it will be necessary to sink the shaft a few feet before putting in skip-road, in order to have fair working room below the penthouse.

WHEAL PROSPER.—S. Mitchell, June 9: The cross-cut toward Trewarvas lode is progressing satisfactorily, and the ground is highly favourable for copper. I have no doubt we shall reach the lode during this month.

WHEAL SPARNON.—Wm. Tregay, E. Chegwin, June 4: The shaftmen are down about 16 fms. below the adit level with the cutting down of engine-shaft. We have commenced opening the adit eastward to take up the water more effectual from East Sparnon. The masons are making good progress in the building. The carriers are bringing the engine from South Crenver. We have opened a quarry in our own sett, by which we expect to get a supply of quarry stone cheaper than that hitherto supplied us. No other change to notice.

WHEAL TRELAWNY.—R. Pryor, T. Grenfell, June 4: Smith's engine-shaft is down 10 fms. 1 ft. below the 18, set to-day to nine men for the month, at 28*l.* per fm. From the appearance of the ground we are near the lode in the 182, north of Smith's, and east of the slide. In the 182, south of Smith's, the lode is improving, worth 6*l.* per fathom, with a very promising appearance. The 172, north of Chippendale's, is worth 7*l.* per fm. The 108, north of Chippendale's, is worth 6*l.* per fm. In the 55, north of Chippendale's, the lode is split into branches, which are letting out water and producing good stones of lead. In the 132, north of Trelawny's shaft, the lode is worth 9*l.* per fm. We have commenced a rise in back of the 142, north of Trelawny's shaft; judging from the appearance of the 132, we may expect an early improvement in this rise. We have cut into part of the lode in the 162, or bottom level, at Trelawny's shaft, which is looking better than over this point in the 152, which we consider very important, and is worth 5*l.* per fm., and presenting very good appearances. We set our usual number of pitches and tutwork bargains, which, as well as the pay, passed off satisfactorily, and we shall sample at our usual time 55 tons of crop and about 50 tons of second.

WHEAL TREMAYNE.—R. Williams, J. Williams, June 8: At the new engine-shaft, sinking under the 143, the shaftmen are still engaged stripping down the north part of the lode, which is about the same in value and appearance as when last reported on, worth 8*l.* per fm. for the length of the shaft, 12 ft. In the same level west the lode is still disordered, yielding low price tinstuff. In the same level east the lode is split into several parts, yielding low-price tinstuff. In the 133 east Allen's branch has a better appearance, yielding some good stones of tin, and likely to improve shortly. In the winze sinking under the same level, 16 fathoms east of shaft, Allen's branch is yielding stones of tin. In the 123 east Allen's branch is worth 6*l.* per fm.; the ground in this level is at present thickly mixed with floors of spar. The stopes in bottom of the same level east, on Allen's branches, are worth on an average 7*l.* per fm. In the 113 cross-cut east, towards the engine lode, there is no change to notice. The stopes in back and bottom of the same level east, on Allen's branches, are worth on an average 12*l.* per fm. In the 103 east Allen's branch is worth 6*l.* per fathom. The stopes in back of the same level, on Allen's branches, are worth on an average 7*l.* per fm. In the 123 cross-cut, south of old engine-shaft, towards the south branches, there is no change to notice since last report, the ground being still of a very congenial nature for mineral.

WHEAL UNY.—S. Coade, M. Rogers, June 4: There is no change of importance in the tin lode since our report of last week, which was our setting-day.—Copper Lode: The shafts and ends are progressing favourably, in a lode of promising character, producing rich copper ore, but not of much value at present. We have put four men to drive a cross-cut south at the 58, east of No. 3 shaft, to intersect the lode cut in East Carn Brea about a fortnight since, which is a valuable one.

WHEAL UNITY CONSOLS.—W. H. Reynolds, June 7: The lode in the 60 west is of the most promising character, with some good copper ore disseminated through it, and likely to improve. In the cross-cut south in this level we have not yet cut a lode, but still have branches of spar, with good copper ore in them, and a large stream of water flowing from the end. In the 40, west of the cross-course, the lode is 3 ft. wide, composed of friable spar, chlorite, &c., with a little copper ore; and, altogether, it has a very promising appearance. The cross-cut in this level we are pushing on as fast as possible, to intersect the old Unity lode; and the ground being moderately easy we are making good progress. The stratum we think very favourable for copper ore, and there are great chances of making a good discovery.

WORVAS DOWNS.—R. Harry, June 8: In the 60 east, on the caunter, the men are now engaged cutting through the lode, in order to ascertain its size and character. In Bamfield's flat-rod shaft, sinking below the surface, the ground continues favourable for progress, and quite congenial for tin. The new shaft recently commenced on Wheal Nicholas lode is down about 4 fms. in a fine-looking lode, yielding saving work for tin, and gradually improving as we go down.

YARNER.—R. Barkell, June 8: There is no change in the 50. The 40 stope is producing fully 3 tons per fm. In stripping down the side of the level at the 30, east of shaft, we have a branch of ore and peach 1 ft. wide, very regular, which appears to be the main part of the lode, and is looking well going east in whole ground. The 30 was driven on the south part of the lode, and there is fully 12 ft. between the two branches; this is likely to be a good piece of ground, as it is parallel with the ore in the north lode. The shaft on north lode is nearly down, and we hope to commence driving in a few days.

FOREIGN MINES.

EAST KONGSBERG.—R. S. Parker, May 20: South Ramsrud: During the past week this vein has given a little native silver; the arsenical iron and other minerals which usually accompany the silver are present in considerable quantities, so that we may confidently expect to meet a bunch of silver soon.—Middle Ramsrud: The vein in this mine averages 3 in. in width, and although the fahlbands appear to be of the best character, the vein continues poor; so long, however, as we have band and vein as here, we may at any moment come upon a deposit of silver.

May 27.—South Ramsrud: The vein in this mine averages 4 in. in width; during the past week it has yielded a little native silver in the east of the Gesenk. The fahlbands are failing, or underlying, so much to the east that it will soon be necessary again to drive a small level east to open up stoping ground. The fahlbands continue very strong, or highly mineralised with sulphurets of iron, zinc, and copper.—Middle Ramsrud: There is no improvement to notice in this vein; it is about 2 to 3 in. in width, but devoid of mineral. The fahlbands are still of the best character.

PONTGIBAUD.—Captain Rickard, June 2: Pranal: The 70 north, on Susan's lode, yields stones of lead ore and blende. The 50 north, on the eastern part of Susan's lode, yields ½ ton of ore per fm. The same level north, on main part of the lode, opens tribute ground. The 8 fm. level, north of western part of Susan's lode, is hard and poor. The same level north, on the eastern part, yields stones of ore, but not to value. The 8 fm. level, south of No. 2 cross-cut, on No. 2 lode, is poor. Our stopes and tribute pitches in this mine have a little fallen off in value.—La Brousse: The sinking of the shaft from surface is suspended, because of an increase of water, and the men put to drive south on a lode yielding 1½ ton of ore per fathom.—Mioche: The 100 north, on No. 7 lode, is suspended, and the men put to continue the cross-cut east. The same level north, on No. 3 lode, yields blende and barytes, with spots of ore, but not enough of the latter to value. The 80 metre level north, on No. 2 lode, yields a little saving work. We have set to rise in back of this level to prove the lode to the bottom of the 60.—La Grange: The 40 metre level, north of Nosky's shaft, is in a lode 15 ft. wide, yielding about 2½ tons of ore per fm. The 20, north of same shaft, is looking very kindly, yielding saving work for a width of 2 ft. The winze in bottom of this level yields 2 tons of ore per fm. The adit north is without change; the lode is large, with stones of ore occasionally. The stopes and tribute pitches, on the whole, yield well.

Roure: Richard's Shaft: The 80 metre level north has improved in appearance, yielding saving work. The same level south is in disordered ground. The 80 south, on the eastern part of the lode, is poor. The 60 south yields 1 ton of ore per fathom. The 60 north, on Emily's lode, yields stones of ore in friable quartz.—Agnes: The 40 south yields a little saving work. The 20 south yields ¾ ton of ore per fathom. Our stopes and tribute pitches generally throughout the mine yield tolerably well. At Rosier our dressing throughout the past month has been much impeded through a want of water to drive the fine brushers. We have taken water for washing purposes from the dam in the Rosier adit, and from La Faye pond, which still contains a supply for some weeks before it will be necessary to work the pump for lifting it from the bottom of the laveries. The new engine at Richard's shaft in Roure will be completed in about 10 days. Our samplings have amounted to 227½ tons.

NOVA SCOTIA LAND AND GOLD.—This company have received by the present mail a remittance in gold of $3000 and $3775 further on account of the sale of the outlying property at Wine Harbour. They have also received the following information from Sherbrooke:—"We have commenced to open on a large lode south of the Cumminger lode. This is a very promising one; it is about 1 ft. wide, and shows gold, and has every indication of being

THE TIN TRADE, ITS POSITION AND PROSPECTS.

The decline which we have been for some time reporting still continued during the first three weeks of the past month, and prices were accepted far lower than for many years past for considerable quantities of Straits. Fortunately, some shipping orders came in at the time when holders were most disposed to sell, and this relieved the market of what was most pressing for sale. Since the state of the money market has become easier a favourable reaction has set in, and a fair amount of business has been done in Straits, with three months prompt, mostly on speculation, importers being the principal sellers. Home consumers have taken but little foreign tin, which is accounted for by the anxiety of the English smelters to keep clear of stock, and their readiness to accept prices under fixed rates, and comparatively lower than those ruling for foreign tin in this market. The Dutch Trading Company have announced their annual sale of Banca for June 29 to consist of 138,100 slabs, with power to add 20,000 slabs to that number, should they arrive in time. It seems probable that the Trading Company will in future discontinue annual sales, substituting quarterly or half-yearly sales instead, while the conditions may also be altered after next March. From the quantity of Banca tin known to be afloat for Holland, we may calculate that the quantity actually offered for sale will be about 150,000 slabs. Although last year's sale was unprecedentedly small—say, only 119,092 slabs—the deliveries since then have been so light that the stock now held in Holland amounts to 42,278 slabs, which added to the quantity coming forward, gives us probably 192,000 slabs, equal to about 6300 tons, for a nine months' campaign. The deliveries during the last eleven months have only been 102,332 slabs, or equal to an average of 9400 slabs per month; and if the Trading Company should decide to begin quarterly sales next March, it will require a monthly delivery of nearly 24,000 slabs to clear off the now available supply. This we hardly think possible, in the present state of consumption in Europe and America. In estimating the position of Banca tin, those specially interested in this article should also take into consideration the position of both English and Straits, particularly at the present time, when we have 2734 tons of Straits in warehouse here, besides about 1150 tons on passage for this country. The accumulation of Straits is accounted for by its consumption having been interfered with by the comparative cheapness of English tin, and the continued large shipments from Penang and Singapore. The trade during the last twelve months has been most disastrous to operators in tin, and it is therefore advisable, if possible, for those now entering on a fresh campaign to see that they do so on a safer basis than last year. Present statistics are undoubtedly against the article, but then present prices are moderate compared with former years, and stocks in the hands of consumers at the lowest ebb. When, however, these gentlemen are convinced that the bottom has been touched, so as to have confidence in buying, we hope that a more profitable trade will ensue. Deliveries in Holland for eleven months, from July to May inclusive:—

	1863-1864.	1862-1863.	1861-1862.
Slabs	102,332	135,750	150,180
Average per month ..... Slabs	9,400	12,200	13,600

The quantities of tin here and in Holland, on May 31, was as follows, compared with the three preceding years:—

	1864.	1863.	1862.	1861.
	Slabs. Tons.	Slabs. Tons.	Slabs. Tons.	Slabs. Tons.
Stock in Holland..	42,278=1400 ..	34,692=1070 ..	19,900= 620 ..	27,716= 860
Arrived towards next sale	137,688=4556 ..	104,686=3250 ..	152,219=4728 ..	147,993=4590
Stock here	2734 ..	2385 ..	1592 ..	754
Total .....Tons	8790 ..	6815 ..	6940 ..	6294

The quantity of Straits tin now afloat for Great Britain is 1156 tons, against 571 tons last year.

ENGLISH TIN was reduced 4*l.* per ton on May 4. There has been a fair demand, but fixed rates have not been obtainable; at present, a reduction of 2*l.* to 3*l.* per ton has to be made to effect sales.

STRAITS declined early in the month from 108*l.* to 105*l.*, at which a large business was done for export and consumption. From this the market advanced to 107*l.* cash, but there were few buyers at the advance. To-day purchases could be made at 105*l.* 10s. Sales for arrival have been made at 110*l.*

BANCA.—The market in Holland declined to 66 fls., but the price has advanced to 67 fls. Since the announcement of the sale it has relapsed to 66 fls., and yesterday Banca was offered ex the next sale at 64 fls. In London, after sales at 110*l.*, 200 slabs were reported at 112*l.*, but now 110*l.* is the nearest value. The official returns from Holland are as follows:—

	1864.	1863.	1862.
Stock in Holland, April 30 ..... Slabs	48,721	39,452	29,300
Delivered during May	6,443	4,760	9,400
Stock on warrants May 31	42,278	34,692	19,900
Arrived towards next sale	137,688	104,686	152,219

The arrivals of tin in London during May have been as follows:—Straits, per Pilgrim, 648 slabs; per Rockliffe, 1890 slabs; per Early Dawn, 1115 slabs=3653 slabs; Billiton and Banca, 850: total, 4503 slabs. Making since Jan. 1, into London:—

	1864.	1863.	1862.	1861.
Banca ..... Slabs	6,800	11,294	1,723	1,125
Straits	26,251	15,314	38,897	31,509
Total	33,051	26,608	40,620	32,634

We estimate the stock of tin in warehouse here at 2734 tons. The export of tin from Singapore, from March 24 to April 23, was—to Great Britain, 352 pekuls; America, 200 pekuls; Continental Europe, 100 pekuls. Price, $25¼. From Penang, during the same period, the export was—to Great Britain, 2126 pekuls; America and Continental Europe, nil; Price, $24. Export of Banca tin from Java:—

	1861.	1862.	1863.	1864.
Three months ending March 31	15,300	20,868	12,700	21,055
" " June 30	20,300	14,150	16,564	—
" " Sept. 30	14,399	9,537	13,800	—
" " Dec. 31	22,183	18,719	29,420	—
Total pekuls	72,182	63,274	72,484	21,055

In April last a public sale was held in Batavia, when 3370 pekuls Billiton tin were sold at 68·19 fls. per pekul, most of which is expected in Holland. The import and export of tin during the month of April, and the first four months of this year, compared with 1862 and 1863, have been as follows:—

Month ended April 30.			Four months ended April 30.		
1862.	1863.	1864.	1862.	1863.	1864.
Import ..... Cwts.	9340 ..	5277 ..	8440	24,395 ..	11,607 ..	15,791
Export—Foreign	3440 ..	1004 ..	1525	13,186 ..	4,462 ..	4,238
" English	4717 ..	7147 ..	6240	22,411 ..	22,971 ..	28,190

TIN-PLATES have been decidedly dull, and easier in price. The enhanced duty in America coming unexpectedly, and with such uncertainty as to its duration, makes shippers to that quarter very cautious, and as that country is by far our largest consumer, the trade generally depends on how the New York market moves. The declared value of tin-plates exported during April last, and the first four months of this year, compared with 1862 and 1863, has been as follows:—

Month ended April 30.			Four months ended April 30.		
1862.	1863.	1864.	1862.	1863.	1864.
£93,305	£156,347	£164,341	£399,626	£435,949	£486,039

VON DADELSZEN AND NORTH.

THE TIN TRADE.—Mr. L. Th. Van Houten, under date Rotterdam, June 2, writes that the Dutch Trading Company has fixed the annual sale of Banca Tin to take place on Wednesday, June 29, when 138,100 slabs will be brought forward, reserving the right to increase this quantity with about 20,000 slabs, if arriving in time. The lots will comprise 500 slabs. The directors further give the assurance that before March, 1865, no other tin will be brought in the market by them. Also, that till that period no Government sales of Banca tin will take place in the Dutch East Indies; and, lastly, that no shipments of this metal will take place from the East Indies to China, for Government account, exceeding the quantity of 10,000 pecuis. The above engagement does not apply to tin belonging to other parties, so that Government reserve themselves the right to grant or not to the contractors for the mine works on the Isle of Billiton the faculty to sell, beyond the 6000 pecuis on Java, also 3000 pecuis in Holland. The statistics for the past ten years are as follows:—

TRADING COMPANY'S PUBLIC SALES IN THE LAST TEN YEARS.

1854—132,864½ slabs sold at .. Fls.	66	1859—139,128 slabs sold at .... Fls.	82¼
1855—134,430 "	74½	1860—151,513 "	79½
1856—167,382 "	73½	1861—149,188 "	69
1857—190,559 "	82¼	1862—155,193 "	67¾
1858—190,842 "	68 1-5	1863—119,092 "	76

STOCK ON WARRANTS WITH THE TRADING COMPANY.

1857	8,255 slabs.	1861	27,716 slabs.
1858	28,024 "	1862	19,900 "
1859	15,475 "	1863	34,692 "
1860	26,640 "	1864	42,278 "

EXPORTS OF BANCA TIN FROM JARVA.

	1861.	1862.	1863.	1864.
Three months ending March 21	15,300 ..	20,868 ..	12,700 ..	21,055 pecuis.
" " June 30	20,300 ..	14,150 ..	16,564 ..	—
" " September 30	14,399 ..	9,537 ..	13,800 ..	—
" " December 31	22,183 ..	18,719 ..	29,420 ..	—
Total	72,182 ..	63,274 ..	72,484 ..	21,055 pecuis.

PRODUCTION OF TIN FROM THE BANCA MINES.

1850	102,708 slabs.	1857	149,336 slabs.
1851	179,730 "	1858	192,950 "
1852	163,160 "	1859	181,968 "
1853	182,498 "	1860	165,620 "
1854	160,038 "	1861	173,008 "
1855	128,256 "	1862	141,770 "
1856	201,312 "	1863	191,963 "

COAL IN INDIA.—Coal has been found in the Salt Range, near Pind Dadun Khan, in the Punjaub, which has been tested by Mr. Harrison, the chief engineer of the Punjaub and Delhi Railways, and by the locomotive superintendent, and favourably reported upon as well adapted for locomotives. The coal is stated to exist in abundance, and much importance is attached to the discovery. The Punjaub Railway, from Umritsur to Mooltan, 252 miles in length, is expected to be open for traffic by the Viceroy about the end of the current year.

THE NANTLLE VALE SLATE QUARRIES.—There appears to be every reason to anticipate that the Nantlle quarries will obtain their share of the general prosperity of the slate trade throughout the principality. A correspondent writes, that in the year 1797 the port of Carnarvon was destitute of all manufactures, whilst at present it is second but to one or two in North Wales. From present prospects, without further discovery in this little valley, there is enough of the valuable slate vein discovered to last for many scores of years. If the principal quarries will keep up the manner of working which has displayed itself for the last five or ten years, this once quiet valley alone will not manufacture less than nine or ten thousand slates monthly. Some of the principal quarries have already more than doubled their make in the last few years. The qualities of the slates are very superior and in colour they cannot be surpassed. It would be very interesting to tourists to make it their pleasure to inspect the principal quarries—namely, Dorothea, Pen-y-Bryn, Pen-yr-Orsedd, and Cilgwyn. From present prospects, no doubt this part of the principality will be greatly improved in the next ten years.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

GOLD IN WALES.—Many of your readers will be glad to hear that Barmouth has its gold mine as well as Dolgelly. A very fine lode has been discovered at Cellfaur, near Barmouth, which is worked by some Manchester and local gentlemen.

WHEAL UNY.—This mine still continues to look remarkably well, the tin sales being very large and very regular. At the meeting, to be held on June 16, the accounts will show the financial state of the mine to be very good. The mine has for some time past been working at a profit, and it is the opinion of many parties that it will become one of the richest tin mines in Cornwall.

HALLENBEAGLE.—This mine is now nearly drained, and several low tributes have been set above the course of ore seen and worked upon some few months since, and from which 950*l.* worth of ore was raised by three men in six weeks, giving a profit to the adventurers of between 500*l.* and 600*l.* This point will be again reached in a few days, and it is said that the lode will be found worth 100*l.* per fathom.

CROWAN DISTRICT.—Those desirous of seeing a resuscitation of mining enterprises should come here, and they can have their delight to the full measure. Anyone acquainted with this place two years back, and had left it just then, to come here now would feel surprised. At the time I speak of the place was a picture of poverty and gloom. We are now, however, delighted to see the gloom passing away, and many of the once-celebrated old mines that have for years been abandoned, through reckless mismanagement and the low price of minerals, starting into private operations again, and life and activity is quite visible. It is now determined to re-work another of these old mines—the BINNER DOWNS: this would have been in operation some months before, but the promoters have waited up to this time to get the lord to grant on the same terms for payment of dues as the adjoining mines—the Crenver and Abraham United Mines are 1-30th. This being settled to-day, active measures will soon be on foot to obtain sufficient capital for effectual work, and, from reports, success appears sure to follow. The mine would not have stopped up to this time could they have worked the eastern ground, but this was impossible while the adjoining mines—Crenver and Wheal Abraham—were idle. This evil is remedied, as they are putting up steam-power to drain them to the bottom, 100 fms. below the Binner Downs.—JOHN SEYMOUR.

ROBOROUGH DOWN.—This mine is opening out a second Great Wheal Vor, but at small cost. From a very limited working near the surface 1000*l.* worth of tin has been raised to bank in the last six months ready for the stamps, which are being erected. With the extensive acreage of the sett (exceeding a mile from north to south), and the number of lodes, it is hardly possible to estimate its probable production. The management is in careful and experienced hands, holding a large interest in the mine.

EAST WHEAL LOVELL is looking better than ever. The lode in the bottom of the engine-shaft, now down nearly 12 fathoms below the 26 fathom level, is still worth 170*l.* to 180*l.* per fathom. In two fathoms more sinking driving will be commenced on this, one of the finest courses of tin ever discovered in the district, and will open up immense reserves of tin ground. The 20 end is still improving; the back on the junction is still worth 150*l.* to 160*l.* per fathom. The shaft, sinking below the 20, on the south lode, now down 4 fathoms below the 20, is worth 90*l.* to 100*l.* per fm. Other places are looking promising to make good discoveries. In clearing out another shaft eastward there are already signs of meeting with important results. The returns of tin and monthly profits will gradually increase.

At TINCROFT MINE meeting, on the 21st inst., a 10s. dividend and a 5s. bonus is expected (4500*l.*) This mine is said to be opening up well, adjoining Cook's Kitchen: 60 forfeited shares will be sold at the meeting, and a large attendance expected.

EAST JANE.—Being in the neighbourhood of Liskeard, I was induced to pay a visit to this mine, where I was much pleased with what I saw. On going to the floors some remarkable fine stones of solid lead ore met my view, which had just been brought from underground. I was much struck with their size and appearance, when the agent (Captain Hodge) kindly put some in the scales for me, which averaged from 40 to 50 lbs. each. In answer to several questions, I was informed the shaft is down nearly 8 fms. below the 26, and is highly charged with lead. This looks well for the next level, which is expected to be reached in about six weeks. In the 26 south the lode is yielding from 10 to 12 cwts. of ore per fathom, with every prospect of a continuance, and other parts of the mine are of a highly promising character. Should the next level be cut rich, as is fully anticipated, and is being watched with great interest in the neighbourhood, the fortunate shareholders will, no doubt, be amply rewarded.

WHEAL GRYLLS and EAST WHEAL GRYLLS have considerably improved during the past week.

GOLCH HILL LEAD MINE (near Holywell) has greatly improved within the last week. A valuable deposit of lead was discovered some short time since above the 60; this level has since been driven to the dip of the same, and has now cut into it. Should the ore continue in this end, a most valuable mine will be laid open in a short space of time; already the discoveries made enable the company to work the mine legitimately and profitably, and those profits must now be greatly increased. The richness of the mines surrounding this property speaks well for the future of this one. The shares are in few but first-rate hands and seems held for dividends.

EAST PANT DU.—Some difficulty has arisen with reference to the payment of the purchase-money for this mine by the limited company formed to work it. The contract entered into in September last fixed the purchase-money at 7000*l.*, of which 4000*l.* was to be paid in cash and 3000*l.* in paid-up shares. The contract has been approved and signed by the directors, and stamped with the company's seal; half of the purchase-money has been paid; and 800*l.* worth of ore has been sold from one of the mines, and the proceeds applied by the company. The Chairman has now obtained an unfavourable report upon the property, and in consequence the payment of the balance of the purchase-money is refused. One-third only of the shares have been subscribed for (2000 shares upon which 2*l.* has been paid, and 3*l.* remains to be called up), yet the uncalled balance will no doubt provide the necessary amount for discharging the claim of the vendor—Mr. Sam. Merryweather. That the balance due to him must be paid is beyond question, and the sooner the shareholders make a call to extinguish that liability the better. As to the statement in Mr. Merryweather's circular to the shareholders that "if they do not continue the company, it is not quite clear but that he is entitled to compensation" for their rendering his paid-up shares valueless, there are no grounds whatever for the supposition that the company would incur any liability in this respect. Mr. Merryweather could with equal reason argue that upon the proposition to wind-up a company being brought before the shareholders, those opposed to the winding-up could get compensation from those in favour of winding-up. This is precisely the position Mr. Merryweather takes.

EAST WHEAL GRENVILLE.—In another fathom the shaft will be down to the 75, and as the lode is improving in the shaft, there can be no doubt that, as soon as they commence driving, both ends of the 75 will be of good value. The agents, when speaking of the bottom of the 65, say—"If the lode continues as at present, it will yield from 8 to 10 tons per fm." They also say that the 55 west is presenting precisely the same appearance as it did in the 65 west, before the discovery was made in the latter level. The future prospects of the mine, therefore, are all that can be desired.

WHEAL BASSET.—Mr. Dabb has been appointed purser, and Capt. Pope manager, in the room of Capt. William Richards, deceased.

THE ST. CUTHBERT LEAD SMELTING COMPANY (Limited).—Referring to the paragraph in last week's Journal, regarding the operations of this company, we have received authentic information as to the working of the new process of smelting the *debris* during the two months ending April 30 last. This period may be taken as a fair criterion for the future success of the company's operations, being entirely by the new process of dry smelting. The profit on about 50 tons of lead, the result of the above two months' working, has been 426*l.* 4s. 3d.; the produce of the year at the same rate would be 2557*l.* 5s. 6d. When the five furnaces are in operation in August next, at least 120 tons of lead per month may be safely calculated upon, at a nett profit, after deducting royalty, London, and all other expenses, of about 12,000*l.* a-year. This, on 50,000*l.* capital, would give the shareholders 24 per cent. per annum.

COAL-CUTTING MACHINERY.—Messrs. Locke, Warrington, Carrett, Marshall, and Telford have patented some improvements in the working and mining of coal and other minerals, claiming, firstly, the system or mode of actuating the cutting tools of machines for working coal and other minerals, and other matters, by the direct pressure of water, or other non-elastic fluid, admitted by any suitable arrangement of valves and passages behind a piston, so as to produce a steady, even slotting action of the tools at any angle into the substance to be cut; and, secondly, the application to and use in machines for working coal and other minerals and earthy matters of a holding-on head or feeler, which is made to reciprocate, it being pressed against the roof during the cutting action of the tools, and released therefrom to allow the machine to move forward during the return or back stroke of the tools, the movements of this head or feeler being obtained from the pressure of water or other incompressible fluid medium. Another claim is for the application and use to and in machines for working coal and other minerals and earthy matters, actuated by an elastic medium of a "holding-on head," or feeler, made to reciprocate by the action of the elastic medium acting on water or other non-elastic fluid, for the purpose of securing the machine non-elasticity between roof and floor during the cutting stroke, and of releasing it during the return or back stroke of the tools.

INVALID COMPOSITION DEEDS.—Unreasonable conditions in a deed of assignment vitiates the deed, and renders it not binding on dissenting creditors. For instance, conditions such as these—"That creditors should verify their debts by solemn affirmation, or in such a manner as should seem expedient to the trustees, under a penalty of forfeiting all benefits under the deed; that a creditor bringing an action upon his debt should forfeit his claim; and that those creditors whose debts were under 10*l.* should be paid in full." The Court of Common Pleas, in the case of Leigh *v.* Pendlebury, held that these clauses were unreasonable, and that, therefore, the deed was invalid.

FRAUDULENT DEEDS.—A defendant to a suit is not protected from making discovery of a deed to which he is a party, and which it is sought to set aside, on the ground that the discovery may subject him to the pains and penalties of the statute 13 Elizabeth, c. 5, if the deed should be proved to be fraudulent and void. This was the holding of the Lords Justices in the suit Bunn *v.* Bunn.

MANCHESTER.—The Mining Market has been rather more active this week. Chivertons have been done at 11¼ to 11⅛; Trelawnys, 20 to 20⅜; Hallenbeagles, enquired for at 4 to 4½; South F[illegible]tes, done at 35s.; Baldwin Lead Mining shares, offered at 4*l.* 4s.—West Beam: T[illegible]orts from this mine are very favourable, and the feeling of the market decidedly better. There is not much doubt that these shares will spring suddenly to a high price from their present nominal one of 12s. 6d., consequently wary men are silently buying up what shares they can, cheap.

*** With last week's Journal a SUPPLEMENTAL SHEET was given, which contains—Meetings of Public Companies: East Wheal Lovell, Great East Lovell, West Par Consols, South Darren, Labuan Coal, Great Barrier Land, Harbour, and Mining, West Canada, East Rosewarne, St. Just Consols, and Copiapo Extension Railway; Foreign Mining Reports; Prices of Materials; Gold from Australian Colonies and New Zealand, &c.

*** With the Journal of May 21 a SUPPLEMENTAL SHEET was given, which contains—The Great Wheal Vor Mining District; On the Mechanical and Chemical Treatment of Gold and other Metals; Professor W. W. Smyth on the Ventilation of Mines, at the Royal School of Mines; On Fuel; Application of Electricity in the Manufacture of Steel; Novelty in Shipbuilding; Extracting Gold from Sludge; Large Mass of Native Copper; Reports from Foreign Mines; Carn Camborne; Progress in Spain; The Operation of the Patent Laws, with Suggestions for their Better Administration; Geometrical Drawing; Mining and Metallic Production in the United States; The Gold-digging in New South Wales; The Copper Trade, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 10, 1864.

COPPER.	£	s.	d.	£	s.	d.
Best selected....p. ton	96	0	0	98	0	0
Tough cake..... "	93	0	0	94	0	0
Tile ..... "	92	0	0	94	0	0
Burra Burra .... "	98	0	0	100	0	0
Copper wire .....p. lb.	0	1	0½	—		
ditto tubes ..... "	0	1	1	—		
Sheathing & bolts p. ton	102	10	0	—		
Bottoms ..... "	107	10	0	—		
Old (Exchange)..... "	90	0	0	—		

IRON.	Per Ton.					
Bars Welsh, in London..	7	17	6	8	0	0
Ditto, to arrive	7	17	6	—		
Nail rods	9	10	0	—		
" Stafford. in London	10	0	0	10	10	0
Bars ditto	9	15	0	11	0	0
Hoops ditto	10	15	0	11	10	0
Sheets, single	11	15	0	12	10	0
Pig No. 1, in Wales....	4	10	0	—		
Refined metal, ditto....	4	0	0	5	0	0
Bars, common, ditto....	7	5	0	—		
Do., merch., Tyne or Tees	8	10	0	9	0	0
Ditto, railway, in Wales	7	5	0	7	10	0
Ditto, Swed. in London.	12	5	0	—		
To arrive	12	5	0	—		
Pig, No. 1, in Clyde....	2	19	0	3	3	3
Ditto, f.o.b. Tyne or Tees	2	16	0	2	18	6
Ditto, forge, f.o.b. ditto..	2	15	0	—		
Railway chairs.....	5	10	0	5	15	0
" spikes.....	11	0	0	12	0	0

LEAD.						
English Pig, ordny. soft	21	10	0	21	15	0
Ditto (WB)	22	15	0	—		
Ditto sheet	22	5	0	—		
Ditto red lead	22	0	0	—		
Ditto white	26	0	0	27	0	0
Ditto patent shot.....	24	0	0	—		
Spanish	20	10	0	20	15	0

* At the works, 1s. to 1s. 6d. per box less.

BRASS.	Per lb.
Sheets	9¾d.-10¼d.
Wire	8¾d.- 9¼d.
Tubes	9½d.- 9¾d.

FOREIGN STEEL.	Per Ton.					
Swedish, in kegs (rolled)	15	10	0	15	15	0
" (hammered).	16	0	0	18	0	0
Ditto in faggots	17	0	0	18	0	0
English, Spring	18	0	0	22	0	0
Bessemer's, Engineers Tool	44	0	0	—		
" Spindle	30	0	0	—		
QUICKSILVER	9	0	0			

SPELTER.	Per Ton.					
Foreign	22	0	0	23	5	0
To arrive	23	5	0	—		

ZINC.						
In sheets	26	10	0	27	0	0

TIN.						
English, blocks	105	0	0	108	0	0
Ditto, Bars (in barrels)..	106	0	0	109	0	0
Ditto, Refined	113	0	0	—		
Banca	112	0	0	—		
Straits	105	0	0	107	0	0

TIN-PLATES.*						
IC Charcoal, 1st qua. p. bx.	1	9	0	1	11	0
IX Ditto 1st quality "	1	15	0	1	17	0
IC Ditto 2d quality "	1	7	0	1	8	0
IX Ditto 2d quality "	1	13	0	1	14	0
IC Coke ..... "	1	3	6	1	5	0
IX Ditto..... "	1	9	6	1	11	0
Canada plates ....p. ton	13	10	0	—		

In London; 20s. less at the works.

Yellow Metal Sheathing .p. lb.	8¼d.- —
Sheets ..... p. lb.	7¾d.- —
Indian Charcoal Pigs } in London ..... }	7 0 0- 7 10 0

REMARKS.—Metals generally occupy about the same position as last reported, the alterations that have taken place, for the most part, are of a trifling character, a slight disposition to easiness prevails in most descriptions, and unless some unexpected demand arises, there seems sufficient indication in the aspect of affairs to lead to a gradual decline in prices. In consequence of the great activity in all kinds of metals during the latter part of last year, the prices of nearly all were advanced beyond what subsequent business could support, and the market appears to be now undergoing a reaction. The rates obtainable in most of the foreign markets have not been equivalent to those quoted here; nevertheless, exports show no falling off, it is, therefore, probable that a depreciation in value will ensue, and although there is not much fear of any material drop suddenly taking place, yet it seems most likely prices will continue to assume a downward tendency. It is probable, however, as prices continue to droop more confidence will be imparted; buyers will, doubtless, act more freely, and there may arise intervals of renewed firmness, and perhaps slight advances established, but there is little doubt that ultimately rates will rule lower than at present, and that before another general resuscitation can be effected.

COPPER.—The stability of the market has been completely shaken by the smelters having accepted orders for manufactured at 5*l.* per ton below what is commonly known or understood as fixed rates. There now no longer exists any fixed prices, and as it is generally known that smelters have taken orders for sheet and sheathing at 100*l.*, no buyers are now willing to execute orders beyond that price. On the other hand, the late transactions enable smelters for the present to suspend further sales, and unless in very large quantities are not sellers below 105*l.* In consequence of smelters not having reduced their list rates, or made their intentions of *underselling* publicly known, great dissatisfaction has arisen amongst the trade. Yellow metal sheets are 7½d. to 7¾d.; sheathing, 8d. to 8¼d. per lb.

IRON.—Orders for rails are less numerous, and in second-hands can be bought at about 7*l.* to 7*l.* 5s. Merchant bars are also lower, and in limited quantities purchases are effected at 7*l.* 5s.: market dull. Staffordshire bars, hoops, sheets, and nail-rods are expected to decline at the next quarterly meeting. For some time past many of the second and third rate houses have been taking orders much below the list prices of last quarter-day. Swedish bars are neglected, the advices from India being very unfavourable. Scotch pigs the last day or two have evinced signs of returning animation, but although prospects are brightening for the moment, the chances of improvement seem to be but of temporary duration.

LEAD.—The demand has diminished, and sellers are not unwilling to make a little concession to meet buyers' limits.

SPELTER.—This metal has so entirely passed into the hands of speculators, that it is almost impossible to foresee what its ultimate position may be. Shippers and consumers buy sparingly, and the stock has increased at the rate of 800 tons per month. The German ports are open, and freights at this time of the year are low; supplies may, therefore, be sent forward very freely, and unless the large operators secure all that comes on to the market prices may decline—in fact, the stock in London is now so large that it will take a long time before it is reduced to its average quantity. The stock on June 1 was 12,500 tons, and the same time last year 4800 tons, being about three times in excess of 1863.

TIN.—In foreign lower prices have been taken; Straits sold at 105s. 6d., and English can be had about 3*l.* under smelters' rates.

SCOTCH PIG IRON.—We are now enabled to review the course of the Scotch pig-iron trade for the first five months of 1864, as compared with the corresponding periods of 1863, 1862, 1861, and 1860. The results disclosed as to the shipments effected, foreign and coastwise, are:—

Month.	1864.	1863.	1862.	1861.	1860.
January .....Tons	38,476	30,467	44,729	39,267	38,695
February	45,843	38,807	39,614	33,070	36,363
March	61,525	50,909	44,495	33,474	39,152
April.....	76,176	70,995	66,975	77,356	63,868
May	64,698	54,170	56,646	67,302	53,428
Total	286,718	245,409	252,459	250,469	231,506

The great progress discernable this year is doubtless attributable to the increased demand from America; time will show whether this demand will be sustained now that an immense import duty has been determined on by Mr. Lincoln and his familiars. Be this as it may, the shipments have made substantial progress this year, having increased 41,309 tons over the corresponding period of 1863, 34,259 tons over the corresponding period of 1862, 36,249 tons over the corresponding period of 1861, and 64,772 tons over the corresponding period of 1860. If we compare 1864 with 1860, we thus arrive at an increase of 29·41 per cent.; and even comparing 1864 with 1862—the next best year on the list—the advance is still 13·88 per cent.

BOSTON, MAY 23.—English Cannel Coal is scarce, and prices are nominal; the article costs high to import, and by the quantity it could not be sold under $20 to $22; and in retail lots at $23 to $25 per ton. In Sydney and Picton nothing has been done, and prices are nominal. Late imports were all previously contracted for. In anthracite there have been sales in retail lots at $14 per ton, which is a further advance. The Iron market is steady and firm for Scotch pig-iron, with sales of Gartsherrie and other brands No. 1 at $60 to $62 per ton, cash and four months. In American pig very little has been done, and stocks are quite light. Prices range from $60 to $53 per ton. Bar and sheet-iron are held at full prices.

NEW YORK, MAY 25.—The market is firm for domestic Coal; the demand is very active for the local trade, the Government, and the East; the arrivals are large, but the consumption is excessively large; we quote from yard $7·50 to $10 for

small and large size. Foreign is nominally held above the views of buyers. A sale of 1000 tons Newcastle gas caking was made by auction at $13·50—a present to the Sanitary Fair of this city. The Copper market is firm; sales since our last of 60,000 lbs. Lake on the spot, at 43¼ c. per pound; 45,000 lbs. ditto for future delivery, at 43 c.; 35,000 lbs. Portage Lake, at 42¾ c.; and 136,000 lbs. Baltimore, at 42⅝ c. to 43 c., cash. The Iron market is quiet, but with a light stock; holders are very firm. Sales of 60 tons slabs, delivered on Morris Canal bank, at $90; and 500 ditto old rails, delivered at Alexandria, Va., at $82·50, cash.

The MINING SHARE MARKET has been without any material alteration this week; on the whole, decidedly dull, but with the usual amount of daily fluctuations in one or two prominent mines, as well as the usual accompaniments of a dull market—all sorts of private reports of failures and fallings off in lodes, which cause fluctuations in prices, and create alarm among outside shareholders, who see the great changes that take place in the market value of their property, without being aware of the secret springs that work them. The largest amount of business has again been in East Grenville, Wheal Grenville, Clifford Amalgamated, East Caradon, Hallenbeagle, East Lovell, East Russell, Wheal Crebor, Great Busy, Great Laxey, Great South Tolgus, Nangiles, Basset, North Downs, Stray Park, Cook's Kitchen, New Rosewarne, West Frances, Providence, East Carn Brea, &c. East Grenville shares have been fluctuating almost every hour. On Monday they opened at 5¼ to 5½, and kept firm; Tuesday declined to 4½, then advanced to 4¾; but, on receipt of a telegram that the 65 west had declined from 7 to 5 tons per fm., shares closed 4⅞ sellers; Wednesday they dropped to 4, sellers, as a private report or telegram, we understand, stated that the lode had failed; but they soon rallied again, and left off 4½ to 4¾. On Thursday they opened 4⅞ to 4½, and left off 4 to 4¼. On Friday they opened 4⅛, declined to 4, and leave off 4¼ to 4½. The agents' report, received on Friday, states that the lode at the shaft is improving, worth 1 ton of ore per fathom. In the 65 west, worth last week 7 tons; the lode maintains its size and character, producing 3 tons of ore per fm., but opening out again into a rich lode. East Caradon shares rather firmer, at 28 to 29. Clifford Amalgamated, 34½ to 35½. Wheal Grenville shares, up to Thursday, were in good demand, at 8½ to 8¾; and it was almost impossible to get them, especially as the agent expected to cut into the north part of the lode in the 110, and an improvement was looked for in the 120. On Thursday, however, a report was circulated on the market, by a person known to be a heavy "bear" at low prices, that there was not an end in the mine to value, and no tin for the stamps! Shares by this means were knocked down in quotations to 7⅞, 8. At the meeting, on May 25, the ends in the aggregate were worth 70*l.* per fm.; and as no intimation had been received at the office of the company of any falling off, we wrote to the managing agent on hearing of the report alluded to, and this morning (Friday) we received the following telegram:—"*Ends same value as at meeting.* The ground in the 110 is indicating a lode ahead; splendid bunch in the winze." Thus showing the entire falsehood of the report; and as it is only a specimen of how the property of *bona fide* shareholders in this and other mines is frequently depreciated many thousand pounds in a day by false reports, is there, we may ask, no remedy for it? If a member of the Mining Exchange, for instance, circulates a *false* report, knocking down a property 4000*l.*, have the committee no power to act? In reference to the tin for the stamps, both Capt. C. Thomas and Capt. Pope valued the tin in reserve some time ago at 17,000*l.* to 20,000*l.* The lode in the 120 has been cut into 3 ft., and still no north wall. The winze sinking below the 100 is worth 50*l.* per fm. The rise above the 90 is worth 15*l.* per fm. The stope above the 100 is worth full 60*l.* per fm. The stope above the 90 is worth 40*l.* per fm. Great Wheal Vor, 33½ to 34¼. The quarterly meeting will be held on Wednesday, to pass the accounts for the three months ending March 30 last; these have been circulated, and show that the profit on the said three months was 3049*l.* 13s. 3d. In the items of cost, it appears the coals consumed in the three months were 913 tons 13 cwts. =587*l.* 6s., timber only 133*l.* odd; the tribute, 88*l.* 4s. 6d.; tutwork, 166*3l.* 2s. 11d.; and the whole quantity of ground sunk and driven during the same period was only 70 fms. 1 ft. 8 in. The Metal shaft was sunk below the 174 fm. level 2 fms. 4 ft. in three months; Ivey's shaft, below the 174 fm. level, 4 fms. 5 ft. 6 in. in the same time. East Lovell shares have been forced down in price, and leave off 17½ to 18¼. The agent's reports state that the lode in the shaft, 11 fm. below the 26, is worth 170*l.* per fathom for 10 ft. wide; back of the 20, 150*l.* per fm. The south lode, in sinking below the 20, is worth 90*l.* per fm.; the lode is 6 ft. wide.

Wheal Crebor advanced to 48s., and leave off 45s. to 47s. 6d.; the mine shows no falling off, except that the cross-course is now in the shaft. The 96 west is worth 1 ton per fm.; the 96 east, 1 ton; the 84 east, 2 tons; and the stope in back, 2½ tons per fm.; the winze below the 84, and before the 96 end, has improved to 8 tons, or 45*l.* per fm. East Carn Brea shares, after reaching 10 buyers, dropped to 8 sellers; in the 60, east of cross-course, the lode will produce 2 tons of ore per fm.; the 60 west, 2 tons; the stopes in back of the 60, 6 tons; in the 50 west, 2 tons; the 26 east, on the new south lode, 7 tons per fm.; the 26 west, 4 tons. Great South Tolgus shares have been very flat at 1½, but advanced to 2½, 2¾; in the 112 cross-cut the agent thinks they are near the lode, as there are good stones of ore in the cross-course. Wheal Grylls, 12 to 14; the mine is reported as having improved in the 30 and 40, on Fisher's lode, which, it is hoped, will in some measure make up for the falling off in the Georgia lode. North Chiverton, 2 to 2¼; the mine has sold 50 tons of blende, for 3*l.* 13s. per ton; and when the engine goes to work, large quantities of this mineral can be raised, and the lead lodes worked. Condurrow, 70 to 80; at the meeting the accounts showed a profit on three months' working of 347*l.* 5s. 3d., a balance against the company to the end of February last, of 8639*l.* 10s. 10d., and a call of 10*l.* per share (2560*l.*) was made. The report of the underground department is favourable.

Cargoll shares have been flat, at 29 to 30, but leave off 30 to 32, and we hear there is some improvement in the mine. Cook's Kitchen shares have advanced from 19 to 20, 21; East Basset, 64 to 66; East Rosewarne, 2¾ to 3; East Russell, 4 to 4¼; Great Wheal Busy, 3¾ to 3¾. North Shepherds shares advanced to 5, 5¼, but leave off 4¾ to 5, weaker. The cross-cut towards the lode is in favourable ground, and the agent thinks it must be cut before many days. In the shaft the branch has increased in size. The north lode has improved in the 16. Great Laxey, 14 to 15; Great Wheal Fortune, 13¾ to 14¼; Hingston Down, 4 to 4¼; Marke Valley, 4¼ to 4¾; Nangiles, 30 to 31; New Rosewarne, 9¼ to 10¼; North Crofty, 4¾ to 4¼; North Downs, 1¾ to 2¼; North Robert, 6s. to 8s.; Hallenbeagle shares have advanced to 5, 5¼; Pendeeen, 4 to 4¼; Prosper United, 4 to 4¼; Providence Mines, 39 to 40, buyers; Stray Park shares have improved from 28 to 30, 31; West Seton, 180 to 190; Wheal Basset, 90 to 95; Wheal Buller, 27 to 29; Wheal Ludcott, 2¼ to 2⅜; Wheal Mary Ann, 14¼ to 15¼; Wheal Seton, 230 to 235; Wheal Trelawny, 19¼ to 20¼; Wheal Uny, 5⅞ to 6¼; South Carn Brea, 5s. to 10s.; West Frances, 30 to 31.

On the Stock Exchange a moderate amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—East Caradon, 28¼, 28½; East Carn Brea, 8¾, 8¼, 8¼, 7¾; East Grenville, 5⅜, 4¼, 4⅜; Grenville, 8¾; Wheal Ludcott, 2¼; Cambrian Consolidated Gold, ⅛, ¼, ⅜; Chiverton, 10⅞; Great Wheal Vor, 34¼, 35, 34¼, 34; Tincroft, 17⅜; Wheal Seton, 228; West Chiverton, 68¼; Clifford Amalgamated, 35¼; East Lovell, 17¾; North Wheal Crofty, 4¼. In Colonial Mining Shares the prices were:—Yudanamutana of South Australia, 3, 2¾; Worthing, ¼; Kapunda, 1¼; Port Phillip, 1¼, 1¼. In Foreign Mining Shares the prices were:—Panuncillo Copper, 1¾; Cobre Copper, 34¼, 35, 34½; East del Rey, ⅛, ⅜; Fortuna, 4; Santa Barbara Gold, ⅛, ⅜, ⅛; St. John del Rey, 43½, 44, 44¼, 43½; Alamillos, 1; Pontgibaud, 8; Vallanzasca Gold, 1⅛, 1⅜; Don Pedro North del Rey, ⅛; Linares, 6; Cape Copper, 11¾.

IRISH MINE SHARE MARKET.—In further proof, if any were required of the correctness of our conviction, repeatedly expressed, that with our most judicious speculative capitalists mining shares rank, at least, on a par with the most favoured securities, we can, consequently on a slight relaxation of the recent tightness of the Money Market, record a very favourable revival of business in mining shares. For the last week we have had daily enquiries for shares in all the mines enjoying any degree of public confidence, either in their prospective productiveness or in their management. Foremost in favour was the Mining Company of Ireland, for the shares of which the demand was so great that the price has risen from the previous maximum quotation of 24*l.* (7*l.* paid) to fully 25*l.* 12s. 6d., both for cash, account, and *new* account, making a total advance of fully 3*l.* within the last three weeks. This company's shares have thus advanced in value, not from any chance discovery, or owing to fictitious Stock Exchange operations, but from the solid reason that their Wicklow Lead and Waterford Copper Mines continue as productive as ever, with a greatly improved management of details in the latter; that their several coal and other mines all more or less promise well, and are conducted, from the Dublin staff down to every under agent, on excellently organised authority, coupled with long and successful practical experience. But not the least element in the causes of satisfaction given to the shareholders is the invariable courtesy and readiness with which every individual holder of a share in the company is furnished with information on all subjects concerning his interest, and the facility with which he can obtain access to the various mines at all reasonable times, a practice which other companies, particularly the younger ones, might imitate with great advantage to the general body of their shareholders. The same reasons which give the shares of the Mining Company of Ireland their present high value keep also those of the Wicklow Copper Mining Company in high estimation; but, the premium on these having been from 150 to 200 per cent. higher, their market price has receded about 10s.—11*l.* 10s. per share (2*l.* 10s. paid) being the best now offered, but there are no sellers at the reduction proposed. Connorree shares are in better demand, and have realised 17s. per share. The shares of the General Mining Company for Ireland were done at par (4*l.* paid). There were sellers of Carysforts. A reduction of 10s. was demanded for Cape Copper shares.

COAL MARKET.—On Monday, only 35 fresh ships coming forward, there was an increased demand for house coals, at a further advance of 6d. per ton on first-class, and to the extent of 1s. per ton on second-rate sorts. No Hartley's for sale; manufacturers' without alteration in value. Best house coal, 17s. to 17s. 6d.; seconds, 16s. to 16s. 6d.; manufacturers' 13s. 6d. to 16s. per ton.—On Wednesday, 34 arrivals. The tone of the market for house coal was less active, but prices quote the same. Hartley's advanced 3d.; manufacturers' as before.—Friday, 37 arrivals. Business was very dull to-day in all description of coal, but no quotable alteration took place in prices. Hetton Wallsend, 17s. 6d.; South Hetton Wallsend, 17s. 3d.; Haswell Wallsend, 17s.; Hartlepool Wallsend, 17s.; Caradoc Wallsend, 16s. 6d.; Gosforth Wallsend, 15s. 3d.; Wharncliff Wallsend, 15s. 3d.; Hasting's Hartley, 16s.; Bute's Tanfield, 14: 6 cargoes unsold; 115 ships at sea.

BRISTOL COAL TRADE.—During the month of May 712 tons of coal were exported oversea from Bristol, as against 1410 tons in April, showing a decrease of 698 tons in the shipments. The exports in May were as follows:—Barbadoes, 462 tons; Bordeaux, 250 tons; total, 712 tons. In the corresponding month last year, 794 tons of coal were exported from Bristol. The total exports for this year amount to 3374 tons, as against 4081 tons for the first five months of 1863, showing a decrease of 707 tons.

East Wheal Florence is about to be worked by a cost-book company, in 6000 shares, of which 4000 at least are to be considered the property of the original adventurers, the remaining portion being offered to the public at 2*l.* per share. The prospectus will be found in another column. Capt. N. Seccombe reports that already there have been two large and very promising lodes discovered, and no doubt other lodes exist. From the present appearance of the lodes where already wrought on, there can be scarce a doubt but at a reasonable depth they will have a good and lasting dividend-paying mine. Capt. Wm. Pascoe observes that, looking at the small extent of ground opened on these lodes, and the quality and quantity of ore sampled (20 tons), he is inclined to think that pretty much copper ore will be raised above the adit level; and he adds that he has scarcely ever seen a sett which offered greater inducements for the investment of capital. Capt John Goldsworthy reports that from present appearances these lodes will produce large quantities of copper ore at a shallow depth; and continues that it is well known that the property is in good mineral-bearing strata, being close on the junction of the granite and killas, and the mines in the north produced large quantities of copper ore.

The North Golch Hill Lead Mining Company is the title of a newly-formed enterprise, having for its object the more extensive development of a valuable mineral property, adjoining the Golch Hill Mine, which has been successfully worked for many years. By the operations of a private company the North Golch Hill Mine has been developed to such an extent as to justify the belief that, by energetic management, it will prove as profitable as many of the mines in the Holywell district. Machinery of the most inexpensive character is all that is required for carrying on the mine, the ground being naturally drained by swallows, peculiar to the district. Capt. Thomas Pierce, who has obtained an enviable reputation as a Flintshire miner, considers the North Golch Hill Mine a very valuable sett, large quantities of lead having been raised between the surface and the 35 and the 55 yard levels. He further states that there are two good shafts sunk to the depth of 60 yards, both of which will be very convenient for working the ground, and he has not the least doubt "if one of the shafts is sunk from the 60 to the 80 yard level, but it will lay open a good paying mine." The sett is held under the Marquis of Westminster, at the low royalty of 20s. per ton.

The progress during the past week of other undertakings recently introduced, the publication of whose prospectuses has been already announced is thus reported:—The Millwall Ironworks Company, and the Lisbon Oil Mills Company have applied to the Stock Exchange Committee for the appointment of a settling day.—The Valencia Slate Slab Company have given notice that applicants who have not received letters of allotment can obtain the return of their deposit money upon application to the bankers.—The Pennant Slate Company have received a large number of applications for shares, especially considering that it is a local company.—The Great North Vor shares have been freely applied for, and the share-list will be closed in the course of a few days.—The Frontino and Bolivia Company's staff left Southampton on June 2. The Frontino Mine is in an efficient state of working, whence remittances of gold are expected by the September mail. The machinery for the Bolivia Mine is in course of manufacture, under the personal superintendence of Capt. Goyen. It is expected that the machinery will be ready for dispatch in about a month hence. The shares are quoted ¼ to ½ prem.

At Redruth Ticketing, on Thursday, 2266 tons of ore were sold, realising 12,602*l.* 10s. The particulars of the sale were:—Average standard, 120*l.* 13s.; average produce, 6⅞; average price per ton, 5*l.* 11s.; quantity of fine copper, 156 tons 2 cwts. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
May 19	5237	£128 12 0	5⅝	£4 9 6	£79 11 0
„ 26	3912	121 9 0	6⅜	5 6 6	79 19 0
June 2	3122	121 2 0	6⅜	5 5 0	79 19 6
„ 9	2266	120 13 0	6⅞	5 11 0	80 15 0

Compared with last week's sale, the standard has slightly advanced. Compared with the corresponding sale of last month the standard is about stationary.

At Wheal Basset meeting, on Tuesday, a dividend was declared of 1*l.* 10s. per 512th share (768*l.*), and a credit balance of 1064*l.* carried forward. The costs were 2132*l.*, and the credits 2511*l.*, showing a profit of 379*l.* only, but the next copper ore credits will exceed the present by 500*l.*; a salary of 6*l.* 6s. per month was assigned to the purser, Mr. Dabb; and the clerk's salary reduced from 8*l.* 8s. to 6*l.* 6s. per month.

At the Great Laxey Mining Company meeting, held at Douglas, on Wednesday, the directors declared a dividend of 5s. per share to the shareholders, payable 14 days from this date; and from the present state of the company, the directors will be enabled to declare a further dividend in September next.

At North Treskerby Mine meeting, on Tuesday, the accounts for the four months ending April showed a credit balance of 559*l.* 16s. 11d. A dividend of 2s. 6d. per share (742*l.*) was paid on February 9. Capts. Pryor, Tregoning, and Jenkin, in concluding their report, state that—"Our ends for some time past have been rather poor, but not at all unkindly, and tributers working in the backs of the levels have, from time to time, made some good discoveries, and as we have a large quantity of ground already laid open we believe similar results will yet be met with; and looking at the large piece of unexplored ground we have still before us in the eastern part of our mine, where a fine looking gossan lode can be seen in a shaft near the surface, together with our chances in the cross-cuts and in the bottom levels near the elvan, we fully believe that the day is not far distant when we shall be in a much better position." The non-payment of a dividend at this meeting is owing to the heavy costs—the sales during the four months having exceeded those of the former by over 60*l.*

At Roskear Mine meeting, on May 31, the accounts showed a credit balance of 2758*l.* 13s. 7d. The tender of Messrs. Harvey and Co., and Messrs. Sandys, Vivian, and Co., for a 60-inch cylinder engine complete, delivered on the mine for 1950*l.*, was accepted, as also the tender for a 26-inch winding engine, with boiler and fittings complete, including cage and steam capstan complete, delivered as per specification at 1380*l.* Capt. John Thomas was appointed the underground agent.

At Trelyon Consols Mine meeting, on June 1, the accounts for Feb., March, and April showed a debit balance of 850*l.* 5s. 5d. A call of 1*l.* per share was made. The loss on the quarter's working was 543*l.* 7s. 11d. The pursers say:—"We have 5 tons of tin less this quarter than last, in consequence of the hardness of the ground in the 30 fm. level; this, with the falling off in price, will account for the heavy loss made in the quarter, but we hope this difficulty will be got over in the time stated, and that our next account will be more satisfactory."

At Devon Copper Mine meeting, on Tuesday (Mr. Wm. Tremayne in the chair), the accounts for the three months ending April showed a debit balance of 58*l.* 14s. 11d. A call of 1s. 6d. per share was made. Capt. Thos. Neill reported that he had every reason to believe that good deposits of ore will be met with in the direction of the great cross-course. Capt. James Pope, of Wheal Basset, reports that he has no doubt, when properly explored, a good and profitable mine will be found.

At the Bryntail Mine meeting, on Thursday (Mr. John Edmonds in the chair), the accounts showed a debit balance of 1861. 0s. 1d. A call of 3s. per share was made. A very satisfactory report from the manager, Capt. Roach, was read, which appears in another column.

At the Sortridge Consols Mine meeting, on Tuesday (Mr. W. A. Thomas in the chair), the accounts showed a credit balance of 104*l.* 16s. 11d. A call of 2s. per share was made. Details in another column.

At the Bedol-Aur Mine meeting, on Wednesday (Sir W. Smith, Bart., in the chair), the accounts showed a debit balance of 99*l.* 18s. 6d. A call of 2s. per share was made. Details in another column.

At the General Mining Company for Ireland (half-yearly) meeting, on Monday (Alderman Cargoll in the chair), the reports from the mining engineer were read—they were of a satisfactory character. Mr. Dobbyn enquired as to when the shareholders might expect a dividend?—The Chairman replied that it was impossible to answer that question. He could only say that the price of spelter was advancing, and that the prospects of the company were becoming more favourable.—In reply to other remarks, Mr. Conelly stated that he had had considerable experience in these matters, and he did not know any mining company whose works were carried on more economically than theirs, under the direction of Capt. King. The report was received and adopted. Mr. W. H. King was appointed auditor for the ensuing year. Mr. A. Carroll and Mr. John Kidd were appointed scrutineers of the ballot for the election of directors. The outgoing directors were re-elected. A vote of thanks to the Chairman terminated the proceedings.

At North Rhine Copper Mining Company of South Australia (special) meeting, on Thursday, it was unanimously resolved that the company be wound-up voluntarily under the Companies Act, and liquidators were appointed.

IMPROVED MINING MACHINERY.—A recently-formed mining company, about commencing operations on a large scale, are desirous of obtaining information as to the best description of materials and general appliances required. With this view, they propose to give a sum of 20*l.* for a good epitome of the most approved machinery and mechanical apparatus essential for an extensive mining establishment. No elaborate details are required, merely a brief recital of inventions or articles, with their chief points of excellence, names of makers, prices, &c.—the object being to acquire precise particulars of the more recent improvements in mining and mechanical engineering materials before giving out their orders.

[A cheque for the above amount has been handed to the Editor of the *Mining Journal*, who has undertaken to forward all papers received to the donors, and to pay the amount to the writer of the one which they shall deem most deserving of it. It will, of course, be understood that the prize paper will be published in the Journal. All others will be returned, or published, as may be arranged. The desire to procure the most efficient machinery not being by any means confined to those offering the present premium; the Editor will undertake to publish brief mechanical descriptions of any improved apparatus which may have been invented by those not disposed to treat the subject generally, upon being furnished with the necessary particulars.]

LEAD ORES.

Sold on the 3d June.

Mines.	Tons.	Price per ton.	Purchasers.
Minera	100	£15 1 6	Walker, Parker, & Co.
ditto	100	15 1 6	ditto
ditto	100	15 1 6	ditto
ditto	48	15 1 6	ditto
ditto	100	14 18 6	Brymbo Co.
ditto	63	14 19 6	ditto
ditto	28	15 3 6	Walker, Parker, & Co.
ditto	6	13 2 6	Newton, Keates, & Co.

Sold on the 4th June.

Wheal Mary Ann	45	30 2 6	R. Michell & Son.
ditto	30	18 15 6	ditto

Sold on the 7th June.

Great Laxey	100	25 10 0	Sims, Willyams, & Co.

Sold on the 9th June.

Maesyrerwddu	31½	15 13 6	A. Eyton.
Coetia Llys	108½	16 8 6	Walker, Parker, & Co,
Deep Level	10	14 8 0	ditto
Brynford Hall	8	14 12 6	ditto
Parry's	17	14 14 6	ditto
Bryn Gwlog	35	15 9 6	A. Eyton.
Long Rake	25	14 19 0	ditto
Speedwell	5	14 1 0	Walker, Parker, & Co.
Merllyn	3	14 3 0	Newton, Keates, & Co.
Pennant	11	14 9 6	Walker, Parker, & Co.
North Henbias	30	14 5 0	A. Eyton.
Dog Pit	13	13 14 6	Walker, Parker, & Co.
Pantne	6	14 10 6	ditto
Penyclyn	30	14 18 6	ditto
Roman Gravels	23	14 12 6	ditto
Pool Park	20	15 12 6	ditto
Llangynog United	9⅛	14 4 6	ditto
Caeconroy	5¼	15 4 6	A. Eyton.
Dyfngwm	12½	14 5 0	Walker, Parker, & Co.

Sold on the 30th May.

Silver Mountain	19¼	14 11 0	Sims, Willyams, & Co.

BLACK TIN.

Sold on the 4th June.

Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
Phœnix	11 17 0 18	£55 0 0	£ 652 3 10	Bissoe Co.

BLENDE.

Sold on the 3d June.

Mine.	Tons.	Price per ton.	Purchasers.
Minera	79	£5 17 6	Vivian & Sons.
ditto	35	4 18 0	H. Southern.
ditto	12	5 5 0	Vivian & Sons.
ditto	14	5 15 0	ditto

COPPER ORES.

Sampled May 25, and sold at Tabb's Hotel, Redruth, June 9.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Carn Brea	67	£2 17 0	Charlotte United	44	£8 1 6
ditto	62	7 0 6	ditto	39	4 11 6
ditto	57	4 10 6	ditto	30	5 15 6
ditto	47	6 9 6	Copper Hill	42	10 15 6
ditto	40	4 17 0	ditto	37	3 11 6
ditto	37	3 14 0	ditto	29	3 15 6
ditto	29	7 3 6	Wheal Uny	44	5 7 0
West Basset	85	6 19 6	ditto	42	5 1 0
ditto	78	4 4 0	Rosewarne United	45	2 16 6
ditto	58	5 15 0	ditto	28	7 8 6
ditto	52	2 18 0	West Fowey Consols	70	8 7 6
ditto	36	4 6 0	New Rosewarne	68	8 4 0
ditto	21	6 10 6	Wheal Anna	45	5 3 0
Prosper United	67	1 15 6	ditto	10	3 15 6
ditto	65	4 11 0	West Alfred Consols	55	1 2 6
ditto	64	3 5 0	Pendeen Consols	30	2 19 0
ditto	32	5 4 6	ditto	23	1 11 6
ditto	30	2 19 0	Wheal Curtis	32	3 12 6
East Carn Brea	71	4 8 6	Gurlyn	26	5 11 0
ditto	65	4 9 6	South Dolcoath	18	12 16 0
ditto	18	6 17 6	Wheal Agar	13	4 6 6
Rosewarne Consols	59	8 7 0	South Carn Brea	13	5 0 6
ditto	47	6 0 0	West Trevelyan	11	7 14 6
ditto	26	14 6 6	West Grylls	5	6 2 6
Great South Tolgus	63	10 11 0	Camborne Consols	4	3 1 0
ditto	62	7 18 0	New Hendra	3	6 8 0
Par Consols	90	6 15 6	Pembroke	2	2 9 6
ditto	30	3 14 6			

TOTAL PRODUCE.

Carn Brea	339	£1727 14 6		Wheal Anna	55	£ 269 10 0
West Basset	330	1696 12 0		West Alfred Con	55	61 17 6
Prosper United	268	878 7 6		Pendeen Consols	53	124 14 6
East Carn Brea	154	728 16 0		Wheal Curtis	32	116 0 0
Rosewarne Con	132	1147 2 0		Gurlyn	26	144 6 0
Gt. South Tolgus	125	1154 9 0		South Dolcoath	18	230 8 0
Par Consols	120	721 10 0		Wheal Agar	13	56 4 6
Charlotte United	113	706 19 6		South Carn Brea	13	65 8 6
Copper Hill	108	691 6 8		West Trevelyan	11	84 19 6
Wheal Uny	86	447 10 0		West Wh. Grylls	5	30 12 6
Rosewarne United	73	335 0 6		Camborne Con	4	12 4 0
West Fowey Con	70	586 5 0		New Hendra	3	19 4 0
New Rosewarne	68	557 12 0		Pembroke	2	4 19 0

Average Standard ..... £120 13 0 | Average Produce 6⅞
Average Price per ton £5 11 0
Quantity of Ore ..... 2266 tons | Quantity of Fine Copper, 156 tons 2 cwts.
Amount of Money £12,602 10 0
LAST SALE.—Average Standard ..... £121 2 0,—Average Produce 6⅝
Standard of corresponding sale last month, £122 11 0,—Produce, 6¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	265	£1771 7 6
Freeman and Co.	160½	904 4 8
Grenfell and Sons	108	840 3 0
Sims, Willyams and Co.	263	1604 11 0
Williams, Foster, and Co.	441½	2246 19 2
Mason and Elkington	339⅔	2119 3 6
Bankart and Sons	43	153 16 6
Copper Miners' Company	139⅔	780 2 8
Charles Lambert	163½	814 5 6
Newton, Keates, and Co.	109⅛	670 15 0
Sweetland, Tuttie, and Co.	212	560 1 0
Penclawdd Copper Co.	21	137 0 6
Total	2266	£12,602 10 0

NO SALE on Thursday next, June 16, 1864.

Copper ores for sale on Thursday week, at the Royal Hotel, Truro.—Mines and parcels.—Devon Great Consols 2033—East Caradon 502—Marke Valley 430—Devon and Cornwall 220—Bedford United 200—Okel Tor 156—Brookwood 148—Wheal Friendship 147—North Robert 62—Wheal Arthur 50—Fursdon 41—Sortridge Consols 35—Oliver's Ore 1.—Total, 4205 tons.

EAST WHEAL FLORENCE, CALLINGTON, CORNWALL.

At a MEETING of the adventurers, held at the residence of Mr. Henry Trefusis Smith, Morice-square, Devonport, on the 30th May, 1864, it was resolved:—"That the mine be divided into 6000 shares, of which 4000 at least be considered the property of the original adventurers, and that the remaining portion be offered to the public at £2 per share."

The adventurers have great confidence in calling the attention of those interested in mining operations to the accompanying reports, which they have received from practical men, who have been requested to state their opinions as to the prospects which East Wheal Florence offers to those who may feel disposed to take a share in opening up so valuable a district.

REPORTS.

March 10, 1864.—By your request I have inspected the above mine, and beg to hand you my report thereon. I presume there is no necessity for me to enter into detail respecting the length and breadth of this mineral property, but content myself by saying that this sett is situate in the parish of Callington, in a good mining district, and is very extensive, especially in the direction of the lodes which have been discovered traversing the sett, being upwards of 500 fms. in length on the course of them. There has been already two large and very promising lodes (and there is no doubt there are several others within the sett) discovered—viz., the Wheal Tonkin and the Wheal Florence lodes, only one of which (the Wheal Florence lode) has yet been wrought on by the present company. On this lode a shaft has been sunk to a depth of 12 fms. from the surface, on a lode varying in size from 5 to 6 ft. wide, with an underlie south of about 1 ft. in a fathom; this lode is composed of iron pyrites (mundic), quartz, and black and yellow copper ore, of excellent quality, producing of the latter from 2 to 4 tons per fm. in many places in the course of sinking the shaft, which is confirmed by the piles of ore now on the surface and in course of dressing. The lode now standing in the ends of the shaft will, no doubt, pay for taking away, and leave a good profit to the adventurers. To the south of the Wheal Florence lode an adit was commenced and driven in a northerly direction about 40 fms. (and intersected the before-named lode about 13 fms. west of the shaft), through a beautiful stratum of clay-slate, and intersecting in its course several branches of quartz, containing portions of yellow copper ore, dipping north towards the lode, and will, no doubt, prove good auxiliaries to it in depth. From this point of intersection of the lode by the adit a level has been driven east by the side of the lode, and communicated with the shaft; the lode has been cut into in several places, and shown unmistakeable indications of there being found a good productive lode when taken down, especially near the shaft, which the men have now commenced doing. About 7 or 8 fathoms north of Wheal Florence lode is the Wheal Tonkin lode, which is also a large and promising lode where seen at the surface, and can be intersected by the continuation of the adit level further north, at a comparatively small expense, the ground being easy for driving. When this is accomplished you will be better able to judge both of the quality and underlie of the lode, and whether the lodes are converging towards each other in depth or not, and thereby ascertain if the present shaft should be converted into an engine-shaft, for the development of the two lodes, or if a shaft should be placed in another position for that purpose. I would also recommend the driving east of a level on the course of the Wheal Florence lode, in the adit level, for the further development of the lode, and the taking off the surface water at that level, besides the opening up some orey ground in that direction. I would also advise the sinking of your present shaft as deep as practicable for water, as a trial shaft, on the lode; and if, in the course of deepening it, it is found to continue productive, and also to be in its proper place, then at once erect the necessary machinery, and push it down as quick as possible; for from the present appearance of the lodes, where already wrought on, there can be scarce a doubt but that at a reasonable depth you will have a good and lasting dividend-paying mine.

N. SECCOMBE.

Camborne, May 10, 1864.—In pursuance of your request, I have carefully inspected the above mine and sett, and have the pleasure to hand you my report. The sett is situated in the rising ground to the north-east, and close to the town of Callington: it is extensive, being upwards of 500 fathoms in length on the course of the lodes, and about 400 fms. in breadth. It includes Wheal Tonkin in the eastern ground, and adjoins the well-known Redmoor Mines to the west. The stratum is clay-slate, and no great distance from the granite to the north. Three known lodes traverse the sett for its entire length, two of which have been intersected 12 fms. below the surface, by a cross-cut adit of 40 fms., and about 220 fms. from the western boundary. Knowling's lode is the most southerly yet seen; it has been opened on by level 15 fms. east of the adit cross-cut. In this driving the lode has varied from 2 to 3 feet in width, with an underlie of 15 in. per fm. south; it is composed of quartz, chlorite, mundic, and at intervals bunches of rich yellow copper ore. Knowling's shaft is sunk 12 fms. below the surface, and communicated with the adit 2 fms. behind the end; the lode in this shaft is from 2 to 3 ft. wide, much of the same character as in the level, also yielding bunches of copper ore. About 4 fms. west of Knowling's shaft the back of the level is working by two men, at 10s. in 1*l.* tribute. Smith's lode is intersected 5½ fms. north of Knowling's, and developed by level 9 fms. west of the adit cross-cut. In this driving the lode is 4 ft. wide, and underlies 1 ft. per fm. south; it is composed of mundic, chlorite, and prian, with occasional stones of yellow copper ore; this lode carries a good flookan on the south side, is well defined, and of a very promising character. The rising ground which these lodes traverse ranges east, consequently they will take back in that direction, and in the eastern ground 20 fms. of backs or more may be obtained above the adit level. They vary a few degrees in their bearings, and will form a junction about 50 fms. to the east of Knowling's shaft. This is a very important point to see, and I would recommend a vigorous prosecution of the adit on each of these lodes in that direction, while they continue so strong and promising; but, should either of the lodes fall off in appearance, I would only drive the adit on the most promising to the junction, which is more central, and probably the best position for the engine-shaft. At all events, the exploration of these lodes at the adit will clearly define the subsequent course you ought to pursue. In conclusion, looking at the small extent of ground opened on these lodes, and the quantity and quality of ore sampled (20 tons), I am inclined to think that pretty much copper ore will be raised above the adit level, and I beg to add that I have scarcely ever seen a sett which offers greater inducements for the investment of capital.

WILLIAM PASCOE.

East Wheal Russell, May 19, 1864.—I have this day carefully inspected the above-named mine, and beg to hand you my report thereon. The sett is situated on the south-west side of Kit Hill, in the parish of Callington, in the county of Cornwall, and is upwards of 500 fms. east and west on the line of the lodes, and about 400 fms. from north to south, and the stratum in which the lodes are embedded is a light blue clay-slate. Close to the granite range an adit level has been driven north about 40 fms., and intersected two lodes, which is about 200 fms. east of the western boundary. The south lode (Knowling's) being opened on by a level about 17 fms. east, varying in size from 1½ to 4 feet in width, composed of capel, quartz, peach, prian, mundic, black oxide, grey and yellow sulphate of copper ore, and underlying south about 1 ft. in a fathom, and the present end (east) presenting a promising appearance. From the present bearing of the lodes, an improvement may be fairly expected. When this level is extended east about 70 or 80 fms. no doubt a junction of the lodes will take place. The lode has been opened on to the west of the adit about 3 fms., the bottom of the level producing a little rich yellow copper ore in places, the lode in the end being small; but as the hill drops fast in this direction there cannot be much chance of an improvement in this direction at so shallow a depth; therefore, I would recommend the suspension of the driving in that direction before sinking deeper. Knowling's shaft has been sunk 12 fms. below surface, and communicated to the adit level, and also sunk a few feet below the adit. The lode in the shaft from surface to adit varies in size from 4 to 4½ ft. wide, of a strong character, and produces copper ore in places. There is a tribute pitch working in the back of the adit, by two men, at 10s. in 1*l.* The adit level has been driven north 3 or 4 fms. from the south lode, and intersected Smith's lode, which has been opened on about 7 fms.; the lode in the end is from 3½ to 4 ft. wide, composed of capel, quartz, prian, peach, mundic, and copper ore, and is decidedly of a healthy character; the stratum in which the lodes are embedded is soft clay-slate, and the underlie south about 1½ ft. in a fathom. The south lode underlying less, there is every reason to believe that in about 40 or 50 fms. the two lodes will form a junction in depth. As the driving is extended eastward on this north lode, I am of opinion that tin will be found on the back. By present appearances, these lodes will produce large quantities of copper ore at a shallow depth. It is well known the property is in good mineral-bearing strata, being close on the junction of the granite and killas, and the mines in the north produced large quantities of copper ore.

JOHN GOLDSWORTHY.

Applications for shares to be made on or before the 30th June, to the purser, Mr. R. E. KNOWLING, Morice-square, Devonport.

GREAT WHEAL METAL TIN MINING COMPANY

(LIMITED).

Incorporated under the Companies Act of 1862, with Limited Liability.

Capital £20,000, divided into 10,000 shares of £2 each.

Deposit 10s. per share on application, and 10s. per share on allotment.

No further call will be made for six months, as it is considered by competent authorities that from £4000 to £6000 will be sufficient to bring the property into a dividend-paying state.

DIRECTORS.

Sir WILLIAM SMITH (Director of the Great Laxey Mining Company), Carlton Club.
WILLIAM A. DUNN, Esq. (Merchant, Newcastle-upon-Tyne and London), 11, Kensington Park Gardens, W.
JOSEPH TILSTON, Esq. (Director of the General Rolling Stock Company), Chepstow-place, Bayswater, W.
JOHN JOHNSTONE, Esq., J.P., Friarstown House, County Leitrim, and 31, Belgrave-road, S.W.
CHARLES JOSEPH CARTTAR, Esq. (Coroner for Kent), Catherine House, Blackheath, S.E.
TEMPLETON HAWKINS, Esq., 39, Woburn-place, W.C.
LOUIS LEVISON, Esq. (Levison and Co., Merchants), Consul for Chili, 31, Threadneedle-street, E.C.
EDWARD CHARLES LEA, Esq. (Mos, Lea, and Co., Merchants), 16, Water-lane, E.C.
W. S. SUTTON, Esq., Annan Lodge, Brighton.
WILLIAM CREMER, Esq. (Director of the Terriccio Mining Company), 69, Sloane-street, S.W.

BANKERS.

London ..... The Metropolitan and Provincial Bank (Limited), 75, Cornhill, E.C.
Cornwall ..... Messrs. Vivian, Grylls, Kendall, and Co., Helston.

AUDITORS.

Sydney G. Smith, Esq., Public Accountant, 19, Coleman-street, E.C.
And one member to be elected by and from the body of shareholders.

SECRETARY (pro tem.)—Mr. Fras. H. Hearn.

OFFICES,—GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company has been formed for the purpose of working a valuable piece of mineral property, situated in the parish of Breage, county of Cornwall, in the Great Wheal Vor and the Wheal Metal mining district.

The present rich lodes in Wheal Metal pass through the Great Wheal Metal sett, and the Great Wheal Vor elvan course: the latter forms a junction with the whole of the lodes in the Great Wheal Metal Mine. (See geological plan.)

The main lode in Great Wheal Vor has produced upwards of £3,000,000 worth of tin, and that at a time when the ore was selling at £50 to £40 per ton, at which price profits to the extent of £3000 and £4000 per month were returned to the shareholders.

The shares in Great Wheal Vor (or Wheal Metal Company) were selling at £6 per share twelve months since, which would amount to £36,000 for the entire property. Important discoveries have since been made, and the mine is enhanced in value upwards of £200,000, the present price being £240,000; independent of which, it is giving dividends to the extent of £18,000 to £20,000 per year.

The directors have consulted some of the first mining authorities in the county of Cornwall, including the land and mineral surveyor for Cornwall and Devon; the mineral agents of the Rev. H. M. St. Aubyn and of J. J. Rogers, Esq., M.P.; the managers of Great Wheal Vor, Great Wheal Fortune, Great Work, Leeds and St. Aubyn, West Grylls, Gurlyn, and of Sithney Carnmeal, &c.; the whole of whom speak in the most positive terms as to the certainty of success in this undertaking.

Prospectuses and forms of applications for shares may be obtained of the bankers, directors, or secretary.

WATSON AND CUELL'S MINING CIRCULAR, published every Thursday morning, price 6d. or £1 1s. per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to investors and speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON F.G.S., and published by WATSON and CUELL, 1, St. Michael's-alley, Cornhill.

N.B. Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines, which they have reason to believe will pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

Now ready, price 5s., by post 5s. 4d.,
STATISTICS OF AND OBSERVATIONS UPON THE MINES OF CORNWALL AND DEVON,
For 1861, 1862, and 1863.
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HISTORY OF THE RISE AND PROGRESS OF MINING IN DEVONSHIRE,
From the time of the Phœnicians to the present.
By G. CHOWEN.
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Price 2s. 6d.,
MR. WM. HOPTON'S NEW WORK, entitled CONVERSATIONS ON MINES, &c., BETWEEN "FATHER AND SON." When ready will have 13 diagrams, showing several ways of working out coal, and of ventilation. Also 11 diagrams, showing how to dial the workings, and lay the said working on plan. N.B.—Only a limited number will be printed.
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Reports after inspection on any class of mines, quarries, or collieries in any part of the world. Promotion of companies undertaken, whether for foreign or home mines, quarries, or collieries.
Spanish, Mexican, or South American mines are considered by Mr. CLEMENT as first-rate properties for investment, Norwegian silver and copper mines as second to none.

Notices to Correspondents.

MANUFACTURE OF PEAT CHARCOAL.—Some time since you inserted my letter, assuring your correspondent, "R. R.," from Dublin, that charcoal could be profitably made from peat, a sample of which I now beg to enclose, for the inspection of those desirous of examining it. If the Dublin friend meant what he said, I am still open to make arrangements with him for its manufacture. If the sample possesses sufficient merit some of your correspondents might introduce it, when its manufacture would be promoted.—JOHN LAWSON: *British Charcoal Works, York, June 7.*

BORING MACHINES.—Seeing, some time since, that one of Crease's boring machines was to be tried at East Gunnis Lake Mine, I would ask the purser of that mine to be kind enough to state the result of the trial, and more especially as to the power required to work it, and the expense of boring hard ground, which I am told is to be found in that mine. I should also like to ask the width of level required to take the machine, the price, and how many there are now at work in that mine. I am very anxious for the success of a machine by which our mines may be more rapidly developed, and the hard labours of our miners lessened.—BOREH: *Tavistock, June 9.*

COAL-CUTTING MACHINES.—We are requested by Mr. Rothery to state that he will forward a reply to the letter from the West Ardsley Company, for publication in next week's Journal.

TRIMLEY HALL LEAD MINING COMPANY.—A meeting of proprietors is convened for the 15th inst., and, as a holder of 50 shares, I think it necessary that the shareholders should know what position their undertaking is in. It appears by the accounts just sent me that there is no less than 328*l.* 2s. 6d. due from calls. This amount ought to be at once called in, as the mine is already in debt; and I hope the secretary will see this done.—E. BREWIS.

CAMBRIAN AND DOLFRWYNOG MINES.—Will some one of your readers be so obliging as to communicate, through the Journal, information respecting the formation, position, and prospects of these companies? The current *on dit*, and the low, or rather no, price of the shares are not consoling to—A SHAREHOLDER.

WHEAL CREBOR.—By referring to the agent's report, received this morning, it will be clearly seen that instead of the lode falling off in yield, it, on the contrary, increases. This will prove the falsehood of the rumours set afloat during the week to knock down the price of shares, and, it is feared, too successfully. Let holders be cautious.—SILEX: *June* 10.

WHEAL ROSE.—Shareholders in mines, living at a distance from London, are often perplexed with the conflicting statements forwarded to them by interested parties. I am glad, however, to see one exception, and to which I have great pleasure in referring. Your correspondent stated that this mine was improving; I find, on looking over the Journal, the sampling in Jan. was 223 tons, in March 300 tons, at which time it was stated that the next sale would be 400 tons. Accordingly, I find the last sale was 410 tons. This must please your readers as well as the shareholders, and if it turns out true that their sampling will be 300 tons monthly this will leave a clear profit of at least 1000*l.* per month, as the ore seems to be very rich.—SUBSCRIBER.

SLATE—"Constant Reader" (Manchester).—We are informed that numerous applications have been made for the shares, and that there is every prospect of the undertaking proving successful.

EAST DEL REY, AND NORTH DEL REY.—The letter of "A Shareholder," in the Journal of May 21, respecting East del Rey Mine, appears to me well worthy of attention by the directors of the company, for it certainly seems to me a strange thing that the returns of gold should be so very limited, while the conditions of production are stated to be so favourable. But as the amalgamation of companies having like objects, and occupying similar fields of labour, seems now to be the order of the day, I write to suggest what appears to me to be a very practicable and desirable scheme for amalgamation—the union of the East del Rey with the Don Pedro North del Rey. These mines are sufficiently near to be under efficient superintendence by the same managing agent. They each possess new property (just purchased)—the Passa Gun in the latter case, and the Morro Sao Vicente in the former, which will only in the third year return profits. It is true, indeed, that the Don Pedro is dividend-paying, while the East del Rey is not paying expenses, but that is in the latter case only a stronger reason for the step recommended; while if this step were taken there need be but one direction, one office, one secretary, and the whole business of the two companies could well be managed by the staff now engaged on one. If I am not correct in these suppositions, there are, no doubt, parties competent to set me right; but if correct, then I beg to be allowed, through you, to call attention to this matter, in the hope that some steps may be taken to carry out the suggestion.—A SHAREHOLDER IN BOTH COMPANIES.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JUNE 11, 1864.

THE ENGISH TIN TRADE.

The date of the discovery of England's first copper mine we can pretty nearly decide, but to trace her tin trade to its commencement is next to an impossibility. That the Phœnicians came to Britain for tin is believed by most people; but whether such be the case or not, of this we are certain, that from the earliest days of English history the mines of Cornwall have played an important part in her progress, and, moreover, been to a great extent the source of tin to the civilised world. Years by hundreds, and possibly by thousands, have rolled by since this metal first left England's shores; and almost every year for centuries has seen tin, in greater or less quantities, exported from Cornwall, but never, so far as we can prove, has the yield of the mines been larger than it was last year. England's commerce constitutes England's greatness; and England's metal trade is an important feature in her commerce. The copper trade of the world, as we have seen, is peculiarly England's own; and we may almost say the same of the tin trade. That the Cornish tin mines exceed in productiveness those of any other country of the world is a great fact, and that their present richness far exceeds their previous yield is as certainly true; it cannot, then, but be interesting to glance, if but for a minute, at the past of this branch of our metal trade; and comparing it with the present, attempt to look forward to its future, and in doing so let us throw aside the earlier traditions on the subject, and, to avoid a wearisome string of statistics, let us confine ourselves to a review of the figures given in the annual parliamentary returns for the last five years, and compare our imports and exports of tin during that period with the yield of our Cornish mines. From the import list we find that British India and Singapore sent us, in 1859, in metal 1914 tons; that Australia sent us in the same year of ore 210 tons; Holland 541 tons of metal; and South Africa 132 tons, in the form of metal also; Peru imported into England, in the same year, 352 tons of ore and 100 tons of metal. These larger supplies, with a long string of minor ones, combined to make the total imports into England in 1859 just 2700 tons of metallic tin, and 563 tons of ore. During the four years following 1859, India continually increased her imports to this country till 1862, when they reached 3491 tons, whilst last year they were only 1884 tons. Of the supplies from Australia during the same time, we find they were pretty constant at 200 tons per annum, and were last year 185 tons. Peru, including Bolivia, sends to England an average amount of 200 tons of ore and 100 tons of metal. From Holland our supplies have gradually increased from 540 tons in 1859, to 622 tons in 1863. We cannot conclude our summary without mentioning Italy, which has figured conspicuously in our imports lately, and whence we received last year 102 tons of tin ore.

Now, the yield of our Cornish mines has been steadily increasing for some years past, and was, in 1863, 1000 tons of ore in excess of 1862, and in that year there was also a great excess above 1861 in the amount of tin brought to market from Cornwall. In prognosticating, then, for our future supplies, we shall be safe in affirming now, at the close almost of the first half of the year, that we shall have to record a great augmentation in the productiveness of the Cornish tin mines; and since every report tells us that the mines of the Eastern Archipelago are practically inexhaustible, and this the amount of tin thrown into Holland for the summer sale confirms; and since we are informed, on the most reliable authority, that Indy will be in future a tin-yielding country; and further, since we are not aware of a falling off in any of the other great sources of tin ore, what hope is there, the miner naturally asks, that the tin market will be restored to its former buoyancy, and the price of the metal as high as in 1859? This question is one of the greatest importance to the Cornish miner, but he may rest happy in the assurance that he has in a great degree been the chief cause of the present depreciation in the value of tin, in that whilst tin smelting was monopolised by a few firms, he continually harped on the notion that the smelter never gave a full value for the ore, and all along from that, although the smelters may have made a larger profit at that time than now, combined they had the power to regulate the price by varying the supply according to the demand in the market. Two great essentials for such a perfect monopoly of the trade were—combination on the part of the smelters not to undersell one another (and in that manner to regulate the price), as well as capital on a large scale. These two qualifications were certainly characteristic features in the original Cornish smelting firms, and are as certainly wanting in the new smelting firms. The Cornish miner thought that by creating competition amongst the smelters he would enhance the value of his article; and blinded with this absurd and short-sighted idea, he persuaded, by promise of large supplies of ore, new smelting companies to start, the result of whose creation has been competition, not for the produce of the mine, but rather for customers to purchase the metal. Well, "it is an ill wind that blows nobody any good," as the proverb says, and certain it is that if the miner has not benefited by the state of things he has created, the consumer has, and will do so hereafter. We may, then, for the future expect such a price for tin as the ratio between the supply and demand warrants, excepting always the fluctuations consequent on the speculations of the metal brokers—speculations which are as injurious to the miner as they are to the market generally. Such inferences as these bring us naturally to the great question—who are the consumers of our tin? As far as our parliamentary returns guide us, we may answer—France, United States, Russia, Turkey, Prussia, Spain, Italy, Holland, are the principal, and Hanover, Australia, Austria, Egypt, Brazil, British India, the smaller consumers. The demand from all the above shows a decided increase in 1863 beyond what it was in 1862; and, if we may judge from the first half of this year, it will be greater in 1864 than in 1863. We have enumerated the countries above in the order of their demand.

We cannot, however, dismiss the great question of the probable demand for tin in years to come, without stating our belief that as surely as the last few years have witnessed a consumption of metals on an enormous scale by those countries merging from a semi-barbarous condition to a state of enlightened civilisation, so surely as this great advance goes on will the same be a characteristic of the time to come. And we do not hesitate to add our firm conviction that as the European carries the arts and appliances of his superior condition to the East and West, and teaches the savage to substitute for earthenware utensils more durable ones of metal, so must the demand continue to increase.

COAL IN FRANCE.

Notwithstanding the increasing efforts of the French Government to stimulate the production—or, rather, the extraction—of coal in France, it appears that the total imports of coal last year into that country were on a very large scale. Thus, while the value of the indigenous production was calculated last year at 4,700,000*l.*, that of the imports amounted to 3,400,000*l.*; so that France was last year obliged to pay for coal to foreign countries three-fourths of the sum represented by the value of its own workings. Annexed is a detailed analysis of the quantity and value of the coal imported last year into France:—

Direction of imports.	Quantity.	Value.
England ..... Tons	1,204,821	£ 877,110
Belgium	2,789,166	2,030,512
Germany	685,864	499,369
Other countries	1,661	1,209
Total	4,681,512	£3,408,140

This quantity compares as follows with the imports at five previous decennial periods:—

1813 ..... Tons	117,000		1843 ..... Tons	1,662,687
1823	326,926		1853	3,530,530
1833	702,349		1863	4,681,512

It must be admitted that the constant progress in the imports indicated by these figures is not very encouraging to those who are seeking to get France clear of the tribute which they consider she pays to foreign countries in the matter of coal. Least of all is it encouraging to those who may cherish feelings of hostility against England, and seek to give Mr. Bull a home thrust, by touching him on what they consider to be one of his most tender points—coal. That they have thus far signally failed is proved by the annexed comparison of the imports of coal effected into France from England at six decennial periods:—1813, *nil* (the war in which Napoleon I. defied England and Europe still prevailing); 1823, 31,105 tons; 1833, 42,641 tons; 1843, 455,662 tons; 1853, 666.720 tons; and in 1863, 1,204,821 tons. It is true that the figures for 1863 are below those for 1862, 1861, 1860, 1859, 1858, and 1857; but in 1858 and 1859 they made rapid progress; and, comparing 1863 with 1853, it will be seen that a very decided advance was established. In addition to the imports of coal effected into France last year, coke to the following quantity and value was received:—

Direction of imports.	Quantity.	Value.
England ..... Tons	6,167	£ 5,409
Belgium	435,935	383,623
Germany	210,651	185,373
Other countries	15	13
Total	652,768	£574,418

The total importations of combustible last year into France were thus:—

	Quantity.	Value.
Coal ..... Tons	4,681,512	£3,408,140
Coke	652,768	574,418
Total	5,334,280	£3,982,558

The indigenous production having been last year, as estimated, 10,000,000 tons, of the value of 4,700,000*l.*, the total consumption of coal and coke in 1863 would thus be 15,334,280 tons, of the total value of 8,682,558*l.*

It must not be supposed because the importations of coal into France were last year on a very large scale that, therefore, the indigenous production has not made rapid strides; on the contrary, a very great advance has been effected. Thus in 1813 this indigenous production was only 771,779 tons; in 1823, 1,195,268 tons; and in 1833, 2,057,631 tons. In 1843 it had still only crawled up to 3,692,539 tons; but in 1853 it had gone to 5,937,985 tons; and last year, as before observed, the estimated total was 10,000,000 tons—showing that the Government of the present Emperor, aided by the abundance of disposable capital which has accumulated during the 15 years of internal tranquility which France has enjoyed since 1849, has communicated a very important impetus to this department of the national industry. But the consumption has outstripped all the efforts of production, as the following short table shows:—

Year.	Production.	Import.	Consumption.
1813 ..... Tons	771,779	117,000	888,779
1823	1,195,268	326,926	1,522,194
1833	2,057,631	702,349	2,759,980
1843	3,692,539	1,662,687	5,355,226
1853	5,937,985	3,530,530	9,468,515
1863	10,000,000	4,681,512	14,681,512

These figures speak eloquently of the immense industrial progress which France has effected in the last 20 years, and especially since the inauguration of the second empire, the increase in her consumption of coal, comparing 1843 with 1833, having been 2,595,246 tons, while comparing 1863 with 1853 the expansion was no less than 5,212,997 tons, or more than double. Even comparing 1853 with 1843, notwithstanding the trying events of 1848 and 1849, there was an expansion of 4,113,289 tons. The advance indicated in 1833 over 1823 was 1,237,786 tons, and in 1823 over 1813, 633,415 tons. Here we have indications of an ever-increasing industrial activity, of a constant development of steam-power in France, and of a material prosperity, which has had of itself a tendency to produce still more prosperity. Thus the increase in the consumption of coal in the first decennial period was 633,415 tons; in the second, 1,237,786 tons (the ratio of progress having nearly doubled); in the third, 2,595,246 tons; in the fourth, 4,113,289 tons; and in the fifth, 5,212,997 tons. France is now enjoying, in spite of American troubles and continental perplexities, a very

large measure of prosperity, and it does not seem too much to anticipate that her coal consumption in 1873 will be at least 6,000,000 tons in excess of that for 1863, or 21,000,000 tons. We see mention made of the probability that by 1873 the indigenous production will have made such strides that France will be quite freed from the necessity of importing foreign coal. We doubt very much, however, whether this will be the case; in fact, the desired equilibrium between the coal production and coal consumption of France seems a Will-o'-the Wisp, to which our neighbours, with all their efforts, cannot effect an approximation.

FOREIGN MINING AND METALLURGY.

From Charleroi we learn that the situation continues favourable, and that nothing at present indicates the probability of a change. In the last week of the past month a good many orders were received from England, especially for plates for ships. More affairs in rolled irons have also been concluded on Russian account. The home trade, which appeared some time since to maintain a reserved attitude, as if it anticipated a change in the situation, has also resumed its orders. As regards the future, the consequences which a considerable augmentation of Customs duties in America may involve remain still a matter of doubt. This elevation is no less than 50 per cent.; and, contrary to the hopes of importers, the new tariff, which was not to be applied until July 1, has been declared applicable from this month. Will it restrict the exportations from England, or will it change in no respect the present current of affairs? These are questions discussed with interest in Belgium, and the *Revue Industrielle* inclines towards the latter of the two hypotheses, and considers that America, absorbed by war, not producing the siderurgical products which she requires, will pay for iron more dearly, perhaps, but will seek it all the same. With respect to the market for pig, some symptoms of revival have appeared in casting, notwithstanding that the construction shops have not all the activity desirable. Prices vary according to quality, and sales are effected at from 3*l*. 16s. to 4*l*. per ton for No. 3, with a scale of 2s. per number. Refining has experienced no change, although it is always in good demand. The radius within which the Charleroi works obtain supplies is being enlarged more and more; they now receive minettes from the Moselle, which arrive *via* the East Belgian and the Sambre and Meuse. The extraction of minerals has been also commenced at Momignies; they are semi-oligistes, and have a good productibility. The blast-furnaces of the Centre supply themselves to some extent in the Tournaisis district; this mineral is also much demanded by a part of the works of the North of France. A reduction which has been made in the transport rates of the State system of railways has met with a favourable reception, as it is the obtention of more economic means of transport which will raise Belgian metallurgy to a more elevated place than it at present occupies. Still it is remarked that the reductions on the State network are insignificant for short distances. According to a new treaty of commerce which has just been concluded between Belgium and Italy, iron in bars will pay on its entry into the latter kingdom 4s. 9½d.; rails, 11½d.; and tools of iron or of steel, 7s. 8½d. The price of coal used for rolling works has not given way, notwithstanding the competition which the works of the Centre and of Liége sustain against each other. The coal workers in the Charleroi district appear disposed to restrict their extraction rather than to consent to a reduction in prices; while, for the rest, some metallurgical establishments seem ready to accept prices, as they are held by colliery proprietors. Half rich coal has less firmness, especially on the French market, where it meets with competitors favoured by conditions of transport. The fact appears to be now admitted at Charleroi that the industrial consumption of France has been partially lost to Belgium, and the Belgian coalowners contend that they can only recoup themselves for that which they have lost by the State purchasing canals, and turning them to cheaper account. Domestic consumption still remains, for which Belgian coal obtains a marked preference, due to its special qualities; unfortunately, however, for themselves, Charleroi coalowners in this department of their operations wage an incessant warfare with each other, the results of which lead continually to a reduction of prices. In the Centre and Mons districts the best understanding exists between coal mining interests, and a striking proof of this was afforded at a recent adjudication of coal to be delivered to the State railway network. Why, it is asked, is not the same foresight displayed in the operations of Charleroi coalowners? It is also remarked that Charleroi coalowners do not sufficiently consider questions of transport. Thus the Mons basin has succeeded in placing in the Haute-Marne considerable quantities of coke by means of a very easy freight, by assuring for return voyages cargoes of minerals, salt, &c. It is a matter of some astonishment that in presence of the by no means reassuring future in store for the coal trade of Belgium, no attempt is made to organise a maritime exportation, and it is suggested, of course from a Belgian point of view, that it would be desirable for Belgian coalowners to send agents to Antwerp or elsewhere to study the best means of running off their products. A singular apathy prevails among the Charleroi group of coalowers, and yet everyone recognises the embarrassments of the present situation and the dangers of the future. A spirit of enterprise is, in fact, much wanted in the Charleroi basin.

At the quarterly meeting of the committee of French forgemasters, which has been just held, an opinion was officially expressed that, on the whole, the situation had not improved, as there was reason to hope would have been the case. In the southern group alone a certain amelioration has taken place. On the Paris market irons have been a good deal offered, and there is a tendency to a fall, but in all the rest of the country the *status quo* is the general law. This state of affairs is an unfortunate contrast with that existing in Belgium, where the firmness prevailing is very great, and where affairs are animated; and in England, where from various reasons—and especially in consequence of the exigencies of the workpeople—high prices are maintained, and do not appear likely to fall. The committee has been completed by the adjunction of several new members—the Duc Decazes representing the Aveyron group; MM. Petin and Gaudet, steel manufacturing industry; and MM. Barbézat and Pinard, the firms engaged in the production of castings. The St. Dizier market is without any very notable amelioration. Thus pig is neglected, and the sale of iron is still very restricted, although, as indicated a few days since, it may now be a little more active than it was at the commencement of May. The question now discussed is, whether the slight improvement observable is an indication of a change for the better in the position of the products of local industry; and although persons concerned scarcely dare to say at present that this is the case they, of course, hope very much that it may be so. The advance which a neighbouring group has just effected may, perhaps, have the effect of bringing some orders to St. Dizier, and hardening prices; at present, however, there is no change to notice in quotations. Thus rolled irons, first class, make 9*l*. to 9*l* 4s., with a scale of 4s. to 8s.; sheets, first-class, 9*l*. 16s. to 10*l*. 4s., with a scale of 12s. to 16s.; and special irons, 9*l*. to 9*l*. 4s., with a scale of 4s. to 8s. per ton. The Eastern of France Railway Company has submitted for ministerial homologation a special export tariff for the transport of mineral from the Launois, Poix-Terron, and Longwy stations, to those of Vireux and Givet. In the Pas-de-Calais basin the Ferfay and Ames Company, near Villers, has just cut in its second pit, already in extraction, two fine veins of rich coal, one 28 in. and the other more than 40 in. in thickness; this new discovery confirms the views now generally entertained as to the immense richness of the basin of the Pas-de-Calais. The report just presented to the shareholders of the Northern of France Railway states that the company is concessionnaire of a new line of railway, passing *via* Soissons, Laon, and Momignies, and uniting itself at Hermeton with the line from Liége to Namur and Dinant. This great international line will be the shortest of all the communications uniting Paris to Germany, and it will give new facilities to Liége industrials for exporting their products to France. It will also open up to Liége collieries the important industrial markets of Fourmies, Hirson, and Anor. The report of the Northern of France Railway directors for the year 1863-4 enters, as usual, into various other points of interest in connection with the coal trade. Thus the report states that, thanks to very moderate tariffs, the company has had a large share in the movement of combustibles arriving at Paris. But navigation, which has always had more than half the whole, materially gained upon the undertaking in 1861 and 1862, and the influence of a reduction of dues upon the canals made itself sensibly felt. In order, then, that the coal traffic of the system might not further decrease in 1863, the directors decided on reducing their prices. What was most striking in the aspect of affairs was that while coal was carried from the nearest sources of supply in increased quantities, coal from the most remote sources made more and more default, so that, with a more considerable tonnage transported, there was a less receipt. It was, then, at the recovering to the system the carriage of coal for long distances that the new tariff arrangements were aimed. The matter was one of great importance to the company, as the transport of combustibles figured in 1862 for 45 per cent. of the whole slow train movement, and for 27 per cent. of the receipts derived from that source. A marked diminution has been observed in the transports of coke, in consequence of the progressive substitution of coal for coke in the heating of locomotives; and the whole traffic in combustible was, for the three years ending 1862, in a stationary and even retrograde condition. Thus, in 1860, the receipts from this source were 406,240*f*.; in 1861, 387,120*f*.; and in 1862, 376,330*f*. The movement of Belgian coal to Paris in 1860, 1861, and 1862 showed a constant tendency to decrease, having been 463,000 tons in 1860, against 405,000 tons in 1861, and 379,000 tons in 1862. The same state of affairs was observed as regards the Belgian coal carried over the company's railway in all directions. The great reduction in the traffic from Belgian coal has been in part compensated for by the development in the transport of French coal on the network. This movement alone amounted to 541,000 tons in 1860, of which 132,000 tons went to Paris; in 1861, to 679,000 tons, of which 156,000 tons went to Paris; and, in 1862, to 914,000 tons, of which 194,000 tons went to Paris. In two years there was thus an augmentation of 370,000 tons in the whole of the deliveries, among which those to Paris figure for 62,000 tons. These figures show, however, that the connection acquired by the French collieries is, to a great extent, confined at present to their own more immediate neighbourhood.

The market for copper has been quiet at Paris, and prices have not experienced any change, English having made 99*l*.; United States, 122*l*.; rough Chilian, 91*l*.; and Corocoro mineral, 92*l*. per ton. At Havre, Chilian has again been dealt in at drooping prices; 300 tons, in bars, to be delivered from England, have made 89*l*. per ton, Paris conditions. With regard to tin, it appears that during the first part of the month which has just elapsed the Amsterdam market remained very feeble. Billiton was sold publicly at 65 fls. to 65¼ fls., and this result involved a fresh reduction in Banca, of which some cédules were dealt in at 66⅛ fls. and 66 fls. The low prices having provoked several orders, the market has regained more firmness, and holders will not now sell for less than 67½ fls. and 68 fls. The announcement of the public sale is now awaited all the more impatiently, since modifications are anticipated in the stipulations previously in force. Annexed are the usual monthly statistical details which we have been in the habit of affording for some little time past:—

	1864.		1863.		1862.
Stock, April 30 .....Ingots	48,791	.....	29,452	.....	29,300
Deliveries in May	6,443	.....	4,760	.....	9,400
Stock, May 31	42,278		34,692		19,900

The stock for the approaching sale was estimated, May 31, 1864, at 137,688 ingots, against 108,174 ingots, May 31, 1863, and 152,219 ingots, May 31, 1862. An improved tendency has appeared in tin at Paris, present rates being—Banca, 120*l*.; Detroit, 115*l*.; and English, 110*l*. There is no sensible amelioration at Berlin or Hamburg; on the other hand, a little more firmness is indicated at Cologne. According to an official document, the quantities of tin extracted from Banca and Billiton, on the account of the Netherlands Government, amounted to 4347 tons in 1862, and 5928 tons in 1863. The same document states that the company which works the Billiton bearings, the tin of which is as much esteemed as that of Banca, proposes to sell this year the greatest part of the products of its mines in Batavia itself, instead of forwarding it to the Dutch metropolis. Lead maintains itself nearly in the same position. The Paris market has been quiet, rough French being quoted by continuation at 23*l*. per ton, with less business, while Spanish makes 22*l*. 16s. per ton. The export demand has been well sustained at Rotterdam. The Cologne market has been firm, and that of Berlin well sustained, but without any very active demand, in consequence of the high rates. There is little stock at Hamburg, and holders demand full prices, nevertheless they grant reductions for lots of any importance; prices remain without change. Numerous and important transactions have been concluded in zinc, and prices have risen in consequence. Thus, at Paris, rough Silesian has been carried from 23*l*. 16s. to 24*l*. 18s. per ton, while the rolled zinc of the Vieille Montagne Company has made 30*l*. per ton. The rise continues at Breslau, and everything which presents itself on the market is immediately taken off. From Hamburg considerable deliveries have been made to England, and the demand on this market has been extremely active, as well for consumption as speculation.

CAST-IRON PIT TUBBING.

From the time the sinking of the Ryhope Pit, Sunderland, was first commenced it has attracted the attention of all connected with coal mining; owing to the magnitude of the undertaking, and in surmounting the numerous obstacles met with in the progress of the work, many expedients have been resorted to not previously thought of. Amongst the more recent improvements introduced, there is the new system of casting pit tubbing, invented by Mr. John Gibson, the object of which is to protect the cast-iron used in pit tubbing from the rapid and destructive corrosion to which it is liable when cast in the ordinary manner; it consists in the application of the process of chilling. Instead of casting the iron in sand, as usual, it is cast in iron moulds, commonly called shells, the effect of which is to cool the surface of the casting rapidly, and thereby cause the outer portion of the casting to become closer in grain to the depth required, so as to render the metal more capable of resisting corrosion.

It is found in practice that cast-iron tubbing thus manufactured, when used in the shafts of collieries and mines, is protected from the usual tendency to rapid corrosion arising from the combined action of smoke and moisture. The process of chilling cast-iron is well known in its application to ordinary purposes, wherein hardness of surface is required, but the system has not previously been applied in the manufacture of pit tubbing. Under ordinary circumstances, Mr. Gibson proposes to chill the surface of the tubbing to the depth of about ¾ in., but he does not confine himself to this particular depth, which may be varied by varying the thickness and strength of the metal behind. Mr. Gibson so arranges his chill-plate that the face alone of the tubbing receives the chill, the other portions remaining as before. This invention is, as will at once be seen, a further step towards the application of steel as a substitute for iron, for it is obvious that the chilled face will approximate very nearly to the character of common steel. As to whether steel is more capable of resisting corrosion than iron is a question which had scarcely been satisfactorily settled, much difference of opinion upon the point having existed; but when, in such a position as the Ryhope pit, the case-hardening the surface of the tubbing is found productive of beneficial effects, its superiority may almost be regarded as proved.

WELL-BORING, AND TOOLS.

Mr. G. R. Burnell, F.G.S., read a paper at the Institution of Civil Engineers "On the Machinery employed in sinking Artesian Wells on the Continent," in which it was stated that, the extraordinary depth of some borings lately made for the purpose of obtaining an Artesian supply of water had led to great changes in the well-borers' art, and to the introduction of various mechanical processes, and of modifications of machinery, into the merits of which it was desirable to enquire.

The first well of this kind was that at the Abattoir of Grenelle. This was sunk, after eight years' incessant labour, a total depth of 1797⅙ ft. (English), and gave rise to many inventions for the purpose of facilitating the progress of the works, for removing the broken tools, for the introduction of the pipes, and for carrying on observations at various depths from the surface. Subsequently, many similar wells were sunk on the Continent, particularly in the Rhine provinces, but they were all of small diameter. The German engineers introduced important modifications in the tools. Ænyenhausen made a striking part, used for comminuting the rock to slide, so as to fall always through a certain distance, and thus avoid a jar. Kind had already applied his system to large excavations for winning coal mines, when he was entrusted by the Municipal Council of Paris with the execution of the well at Passy. This was to have a diameter of 1 metre (3 ft. 37-16th in.), that of Grenville being only 20 centimetres (about 8 in.) The difficulties encountered in carrying the excavation through the clays of the upper series were so serious that six years and nine months were occupied in reaching the water-bearing stratum, which was ultimately attained at a depth of 1913 feet 10 inches from the surface, when the yield was 3,349,200 gallons per day, of 24 hours, subsequently increased to 5,582,000 gallons, and then continued at 3,795,000 gallons per day. The total cost of the well was 40,000*l*. It was lined with solid masonry for a depth of 150 feet, then wood and iron tubing was introduced to 1804 feet from the surface, and below that there was a length of copper pipe pierced with holes.

The results of this well had been so satisfactory, as regarded the quantity of water, that the authorities had decided to execute at once two additional Artesian wells, and there were rumours that two others were contemplated.

There were three different systems of well-boring, mostly dependent on the nature of the tools: the Chinese, or Fauveile's; the French, or rather the usual well-borers' plan; and M. Kind's. In the first, the motion given to the tool in rotation was simply derived from the resistance that a rope would exercise to an effort of torsion, and, therefore, the limits of application of the system were only such as would allow the tool to be safely acted upon. Besides, a considerable quantity of water was required to clear out the boring, so that this plan had been almost universally abandoned. In the ordinary system of well-boring, the weight of the tools and of the solid iron rods became so great, when the excavation was deep, that there was considerable difficulty in transmitting the blow of the tool, in consequence of the vibration produced in the long rod, or in consequence of the torsion. Hollow rods filled with cork, and M. Æuyenhausen's joint, which permitted the tool to fall freely, and through the same height every time it was released, were now employed. M. Kind adopted both these modifications, and in the well of Passy he substituted oak rods for iron ones, as being lighter, and more easily counterbalanced in water. The products of the excavation were still most frequently removed by augers and cnisels, and all the processes hitherto practised were considered to be more or less defective, as in every case the comminuting tool had to be withdrawn. In the well at Passy M. Kind employed a trepan to comminute the rock; it weighed 1 ton 16 cwts., and fell through 2 ft. This tool was composed of two principal pieces—the frame and the arms—both of wrought-iron, but the teeth of the cutting part were of cast-steel. The frame had at the bottom a series of holes slightly conical, into which the teeth were inserted, and were tightly wedged up. These teeth were placed with their cutting edge on the longitudinal axis of the frame that received them, and at the extremity of the latter there were formed two heads, forged out of the same piece with the body of the tool, which also carried two teeth, placed in the same direction as the others, but which were made of double the width of the latter. In order to render this part of the tool more powerful. It was by increasing the dimensions of these end teeth that the diameter of the boring could be augmented, so as to compensate for the diminution of the clear space by the tubing that it might be necessary to introduce in traversing strata disposed to fall in, or to allow the waters from below to escape at an intermediate level. Above the lower part of the frame of the trepan was a second piece, composed of two parts bolted together, and made to support the lower portion of the frame. This part of the machinery also carried two teeth at its extremities, which served to guide the tool in its descent, and to work off the asperities that might be left by the lower portion of the trepan. Above this, again, were the guides of the machinery, properly speaking, consisting of two pieces of wrought-iron arranged in the form of a cross, with the ends turned up, so as to preserve the machinery perfectly vertical in its movements by pressing against the sides of the boring already executed. These pieces were independent of the blades of the trepan, and might be moved closer to it, or further away from it, as might be desired. The stem and the arms were, lastly, terminated by a single piece of wrought-iron, which was joined to the frame by a kind of saddle joint, and was kept in its place by means of keys and wedges. The whole of the trepan was finally jointed to the great rods, that communicated the motion from the surface by means of a screwed coupling, formed below the part of the tool that bore the joint, which permitted the free fall of the cutting part, and united the top of the arms and frame and the rod.

THE GREAT CASTING IN AMERICA.—Much interest seems to be felt in the late successful casting of the 20-inch gun at the Pittsburg foundry—the details of which appeared in the Supplement to the Journal of April 16. The spherical solid shot designed for this gun will weigh 1000 lbs. It is said that, if rifled, the gun will carry an elongated shot of nearly 1 ton weight. The matter of this extraordinary casting was brought to the attention of the American Polytechnic Associatiation, at its meeting held in New York, when much discussion was elicited respecting large castings. One great difficulty attending them heretofore has been the liability of porousness in the casting. This difficulty in the present case was obviated by the cold water which was kept circulating through the core during the process of casting and chilling. One member remarked that this question of the even quality of large castings was an important one. More importance seems to have been attached to it than was warranted. This fact was enforced by citing an instance of a recent production of a solid piece of cast-iron measuring 5 ft. in diameter by 7 ft. in length. It was not cast in a mould, but accidentally "chilled" in a ladle; it had been poured into the ladle to be used with other meltings, to form a bed-plate for a steamship, but when the men were ready to pour it it was found to be chilled. It was said that it would not pay to break it up; but the breaking was afterwards accomplished, and on examining the fragments he was surprised to find its texture even and consistent to the centre.

STRENGTHENING TILT-HAMMERS.—It is well known that tilt-hammers are very liable to break in working, and often after having been in use only a short time, and it is found that the breakage generally occurs either near the burst of the helve or horizontal lever, or near to the flask. To provide a remedy for such breakages, Messrs. Davis and Bowler, of Brettle-lane and Wall Heath, Stafford, have provisionally specified an invention, according to which, after having obtaining two iron rods of suitable length and sufficient strength, they place the said rods one on each side of the helve, beginning at the tail collar, to which the rods are attached by pins or other fastenings; they are then carried over two carriages on the burst to the flask of the helve, to which they are secured by snugs cast on each side of the flask. In addition to these tie rods they construct a top and bottom plate, which runs the whole length of the helve, and which plates are keyed thereto at each end by means of gibs and wedges at the one end of the helve near to the flask, and at the other end near to the tail collar.

UTILISATION OF SMALL COAL.—An improved mode of utilising small coal has been patented by Messrs. Bayelt and Vigouléte, which is alike applicable to the agglomeration of coal, coke, charcoal, tan, sawdust, or other combustible materials into convenient masses for combustion. For this purpose they either take the dust of such substances or reduce them to powder, washing them when necessary to free them from incombustible matters, and to add to them lime and a solution in water of the silicate of soda, potass, alumina, or any other soluble silicate, with a small portion of the carbonate, nitrate, or other soluble neutral salt of soda, potash, alumina, or other alkali. They mix the whole thoroughly in a pug-mill, or other vessel suitable for mixing, and then mould it under such pressure as is necessary to make it take the shape of the moulds, and squeeze out the greater part of the moisture, so that when taken from the moulds it forms blocks, which shortly dry and harden on exposure. The lime and other materials may be applied to the fuel in various proportions, according to the particular nature of the fuel itself, and the particular sizes and purposes of the agglomerated blocks; but they seldom find it necessary to apply to every hundred parts (by weight) of the fuel more than 1 to 2 of lime, ⅛ to 1 of the silicate, and from ¼ to ⅛ of the neutral alkaline salt. In mixing these substances with the fuel they prefer to add first the lime, mingled with water to the consistency of milk, and thoroughly mix it with the fuel, thereby moistening it; they then add to the paste so formed the other matters above mentioned, and again thoroughly mix and mould into blocks as soon as possible, before the chemical action of the substances takes effect.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JUNE 9.—The Coal and Iron Trades continue in the same state as last reported. The price of iron is still maintained, although pigs are certainly accumulating at the works to an extent unknown during the last few years, but the causes are considered to be political complications, and, therefore, only temporary. All the furnaces of the district on the Wear, Tyne, and Tees are in full blast, with the exception of a few at Consett; and several new ones are building. The Coke Trade continues, on the whole, very good, the demand being fair, while the demand for most descriptions of coal is better than has been experienced for years.

The notice in last week's Journal that the gas engineer of the North-Western Railway has been making experiments in the use of mineral oils for burning in signal-lamps, railway stations, &c., and has succeeded in getting lamps suitable for this purpose, has been read with much interest; the cost of working these lamps being stated to be only one-half the cost of other oils when similarly employed. It is also stated that these oils will be found useful for lighting mines, &c. This subject is well worthy the attention of managers of collieries, as a great saving can be effected in using mineral oil instead of whale and rape-oil, &c. The experiment has been tried at various places in coal mines both in Cumberland and in the Newcastle district, and the result is most satisfactory, as an excellent light is secured at a much less cost. Taking the average of the cases of which we have an account, the cost of using mineral oil for lighting underground only amounts to one-fourth the cost of whale oil, &c. [it must be understood that this refers to open lights only], thus effecting a saving of 75 per cent.; and it must be observed that the light is also very much superior, one paraffin lamp giving, at a rough estimate, as much illuminating power as one and a-half lighted by whale oil, &c. This, at any rate, is the result of actual experiments made with different lamps.

At the meeting of the North of England Institute of Mining Engineers, on Saturday, the chair was taken by Mr. G. C. Greenwell (in the absence of the President). A letter was read from Mr. Berkley, of Marley Hill, giving an account of a Miner's Shovel which has lately been found in opening out some old pits which have been suspended for upwards of a century. The shovel itself was also exhibited, and is a wooden implement, formed entirely of ash wood, the shank and body of the shovel being all of one piece, but the point of it is shod with iron It is in a wonderful state of preservation (the initials of the owner being plainly visible), and is interesting as showing the kind of tools in use at that period in our coal mines. Similar shovels to the one here described have been found in the workings of Shipcote Colliery, Gateshead, frequently, but in such a state of decay that on exposure to the atmosphere they have crumbled to dust, and have been quite incapable of preservation.—Mr. Daglish read an abstract of the paper prepared by him, in conjunction with Mr. Baker Forster, on the Magnesian Limestone, and which had been read before the Geological Section of the British Association. The paper is divided into six heads:—1, the large quantity of water found in the limestone, and its causes; 2, the line of saturation; 3, saline water; 4, red beds, not permian; 5, iron, divisibility of the limestone into groups; 6, faults similar to those of coal measures. Discussions then took place on papers read at former meetings—the "Anthracite Coal of America," and the "Extension of Coal under the New Red Sandstone of Cumberland." The discussions on the "Wash or Drift through the Coal Measures of Durham," and on the "Iron Manufacture of Durham and Northumberland," were postponed.

A trial of much importance to coalowners was decided before the Court of Common Pleas on Thursday last—"The Guardians of the Keelmen's Hospital on the Tyne *v.* Dawson." This was an action brought by the plaintiffs to recover the amount of one farthing per chaldron on all coals shipped by the defendant from the Bedlington Colliery, on the Tyne, under the provisions of an Act of Parliament, passed in the first year of George the Fourth. In the year 1820, great numbers of keelmen were employed on the Tyne conveying coal in lighters from the various staiths to the ships lower down near the mouth of the river, and as those men, when disabled by old age or accident from work, became burdensome to the various parishes, the coalowners agreed to a private Act of Parliament, imposing one farthing per chaldron on all coals shipped by coalowners on or near the Tyne. In the present action, the sum sought to be recovered was upwards of 300*l*. In the course of time the system became altered, the majority of colliers at the present day shipping their coals in docks, or at staiths, independent of lighters; and, under those circumstances, the tax was resisted, and it was submitted that the Bedlington Colliery did not come within the meaning of the words "near the Tyne," the colliery being situated thirteen miles from the river, and shipping its coal in the Tyne Dock. It was, therefore, contended that under the changed circumstances of the time, the object of the statute had ceased. The keelmen were ceasing to exist, as a class, their labour not being demanded. The Chief Justice decided that the sum was due. It seemed to him that the purposes for which the Act of Parliament was passed was entirely defeated by the progress of time and by the change of circumstances. The real purpose of the statute had passed away. But the Act of Parliament was to have effect given to it according to the terms that were used, and in terms it used the words—that the coalowners for every chaldron sold by them shall have a farthing imposed, and the description given in the enacting clause was that "the owners of the coal mines near the Tyne selling coals to be exported shall pay ¼d. per chaldron for every chaldron sold." He thought that the defendant fell within this description, although the coals were exported now without the aid of keelmen. The other learned judges were of the same opinion. Judgment for the plaintiff.

At the monthly meeting of the Newcastle and Gateshead Chamber of Commerce an important subject was brought forward, being the manner in which coals are brought to the staiths for shipment. At present they are reckoned by the chaldron, and it is proposed to have a weighing-machine at every staith, over which every wagon must pass, and its weight be taken down by a person appointed for the purpose. By this system an end would be put to the continual disputes arising between the coalowners on the one hand and the shippers and shipowners on the other. At present the railway companies have also to suffer complaints that the proper quantities are not delivered at the staiths. It was resolved that a deputation should wait upon the general body of the coal trade, state that they considered the question sufficiently ventilated, and that a certain limit of time should be given for the commencement of the new system of selling their coals by weight, arrangements being made in the meantime for that purpose.

At the Ryhope Colliery active preparations are being made to extend their important operations. The *Durham Advertiser* says that some time ago the owners commenced to sink a second shaft in connection with the colliery; but operations were suspended, in consequence of want of engine-power to pump out the immense quantity of water which found its way to the new shaft. To supply this deficiency, the services of Messrs. Thos. Murray, engineers, Chester-le-street, were called into requisition, and this firm lately supplied to the Ryhope Colliery owners the largest pumping-engine in the coal trade. As soon as the connection is established between this beam and the engine, which is expected to be effected shortly, the owners will proceed with the sinking of the new shaft. With the present means at command, Ryhope Colliery, when at full work, sends to bank the enormous quantity of 2000 tons of coal per hour, and when the present contemplated extensions are completed it is anticipated this large supply will be vastly increased.

MR. JOHN BROWN, OF DARLINGTON.—It is our painful duty to record the death of Mr. Brown, who for many years represented the Messrs. Pease, of Darlington, in their extensive coal and coke business. His frequent intercourse with nearly all the locomotive engineers in the kingdom rendered his name amongst them familiar as household words. By great and untiring exertions, combined with much natural ability, he raised himself from the humble position of a coal miner to that of the responsible agent of the Messrs. Pease, one of the largest mercantile firms in England. He relinquished his engagements with the Messrs. Pease in 1856, and entered into mining enterprises on behalf of himself and partners. During the past two years he has been actively employed in developing the extensive coal mines near Topiltz, in Bohemia. This arduous task, and the discomforts attendant upon a residence in a strange country, no doubt did much to undermine his naturally robust constitution. He returned to England a few months ago, very much out of health, but his business engagements in Bohemia appeared to him to require personal attention, and accordingly he proceeded on the journey, contrary to the advice of his friends, but only reached Leipzig, where he died amidst strangers. He has a left a widow and numerous family to lament his early death.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

JUNE 9.—The position of the Iron and Coal Trades in these counties is such as to afford the most gratifying proofs of the continued soundness of commercial transactions generally. Indeed, though a portion of the Continent is convulsed with war, the pacific relations of the British Government give a great tone of confidence to the trade. Merchants are in great confidence as to the continuance of a good summer trade; and as the requirements for iron for exportation continue exceedingly good, as well as there being a great demand for home consumption, little fear need be entertained of a continued successful trade. The requirements for iron for railway purposes are on the increase; and as the Committee of the House of Commons have looked favourably on many schemes, there is sure to be a great demand for rails. The bill of the Chesterfield and Sheffield Railway, promoted by the Midland, comes on in the Lords on Monday next, and is threatened with opposition from the Sheffield Town Council, but it is not likely to have any effect, as the Lords always look with suspicion to an opposition which has extended from the Committee to the House of Lords. The Steel Trade is tolerably good, but there is a disagreement as regards prices, which is not yet finally settled. The demand for rails and railway springs is exceedingly active, and there are plenty of orders in the market to keep manufacturers in the Sheffield district very fully employed. The armour-plate manufacturers are, as usual, exceedingly busy, and the only consideration with them is the quantity which they can get ready for Government without the least possible delay. Indeed, we may conclude, from the orders in hand, that the Government intend to coat the whole of our navy with iron plates. We have a large enquiry for machinery and steam-engines for exportation, and also for manufactured cutlery in general.

The Coal Trade is in a very active state, though the weather for the last few days

would indicate a falling off, so far as regards household consumption. The continuance of the lock-out in South Yorkshire gives us an increased demand for coal in Lancashire, and particularly in Derbyshire, and the result is that all the pits are fully employed, and it is against the interest of the masters that any men should be out of employment. Indeed, so far from that being the case, there is not a man out of work who is disposed to work. The state of the lock-outs in South Yorkshire is truly awful, partial famine and deprivation being very prevalent throughout the whole of the coal-producing district. The lock-outs were to have left the cottages occupied by them this week, but the owners of the Oaks pits were prevailed upon to let them remain a month longer. There is a great effort now making to maintain the integrity of the relationship between master and workman, and the proceedings which have been enacted in South Yorkshire have been extensively referred to as proving the necessity for such a step. The masters believe the strike will not last another month, on account of the men being short of funds, and, on the other hand, the men appear determined not to give way.

A fearful colliery accident occurred at the Victoria Colliery, at Snydale, near Pontefract, this morning, by which two poor fellows lost their lives, and a third is seriously injured. The three men had descended in the skip for the purpose of blasting, and having lighted the fusee gave the signal to be drown up. They had got about 60 yards up the shaft, when the explosion in the bottom took place, when B. Hepworth, 35, and J. Greenwood, 20, were blown out of the skip. The third man in the skip, Carter, by some means managed to keep in the skip, but was much burnt. Each of the deceased leaves a widow and one child. It is supposed that there has been some negligence in not having the proper apparatus down the shaft for conveying out the foul air.

The local stock and share markets have been better patronised this week, and the transactions in railway and bank shares have been more numerous. The market is, under all circumstances, very healthy.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JUNE 9.—The Iron Trade keeps quiet, without any decided change. The leading houses, though they have not many orders on hand, are able to keep their works on nearly at full time, or as fully as the men are disposed to work. The best department of the trade is plates, for which there is a good demand at a fair price. Nail rods are very low, and other sorts of iron are selling by second-class makers at from 10s. to 15s. below the trade rates. There are very few American orders, and the trade is to a great extent suspended during the operation of the extraordinary 60 days' tariff. News of the future financial arrangements are looked for with interest. If the increased duties should cease at the end of the present month, a good demand for the States is pretty certain, but the uncertainty on this point, and the recent sudden fluctuations in the exchange, check operations. Pig-Iron is very slow of sale; some say there is a slight improvement, but buyers hold off, and sellers offer low prices. Best hot-blast pigs may be bought at from 3*l.* 15s. to 3*l.* 17s. 6d., with the exception of some very special makes. The producers of pig-iron are at this moment in an awkward position, and even with the reduction of wages, of which notice has been given, the trade will not be by any means in a flourishing state. Stocks are no doubt running off, and, should the price of finished iron keep up, there is reason to believe that pig-iron must go higher than it is at the present moment.

The Percy controversy flickers yet in the columns of the *Birmingham Daily Post*. Whether Dr. Percy's letter in Monday's paper is the last of the series it is hard to say. In answer to Mr. Johnson's comparison of men employed with fatal accidents, he adduces the return of coal raised per fatal mining accident, which puts South Staffordshire in a bad position. But most people regard the amount of coal actually raised in South Staffordshire as far greater than Mr. Hunt's estimate. One reason, perhaps, is that the boats take 30 or 40 per cent., in some instances, in excess of the nominal weight.

On the question of the long wall system of working thick coal, Dr. Percy says—"Mr. Rupert Kettle's interesting paper is now published in the form of a pamphlet—[Dudley: Samuel Mills]—and deserves careful perusal by all who are interested in the important question of the best method of getting the 10-yard coal. The following extract (p. 14) relates to the alleged superiority of the long wall method, as compared with that of pillar and stall:—'Mr. Brough gives his high authority for stating that the yield may be increased 10,000 tons an acre; and lastly, I will quote Mr. William Mathews, who gives the lowest, but on that account, perhaps, not the least trustworthy estimate, when he says the produce may be increased from 6000 to 7000 tons an acre. I should say his illustrations are taken from a district in which the 10-yard coal measure is defective; indeed, the average of the four sections he gave shows an average deficiency as great as 3½ feet.' In the question at issue other considerations are involved beyond the quantity of coal gotten. In the long wall method there is vastly less risk of life. Mr. Brough, in his report for 1858, stated that, 'of the total 81 deaths, only 5 took place in mines where the long wall method was in use, all the others were in those where the coal is obtained by pillar and stall.' The present Inspector for South Staffordshire, Mr. Baker, in conversation with Mr. Kettle, said, 'In the long wall pits at Shut End, I have not the complaint of any underground injuries, not so much as a pinched finger.' (Lecture, p. 32.) Security to life I hold to be a matter of paramount importance, greater even than that of the quantity of coal raised. Mr. Kenyon Blackwell, who has had large experience in the working of collieries in South Staffordshire and other parts of Great Britain, has often expressed to me his conviction that on this ground alone the long wall system ought to be rendered compulsory by legislative enactment."

The Hednesford Colliery Company, with a capital of 60,000*l.*, has been formed for the purpose of working mines near Cannock, which have, up to the present time, been worked by Messrs. Francis Pigott and Co. Mr. Pigott remains managing director, and the local names in the directorate are those of gentlemen who stand very high as commercial men in South Staffordshire; whilst the Birmingham Financial Society, who bring out the company, very emphatically recommend it to the public.

REPORT FROM MONMOUTH AND SOUTH WALES.

JUNE 9.—It is now about 18 months since the improvement in the Iron Trade commenced, and it must be admitted that during that time the Welsh ironmasters have, perhaps, received a larger proportion of benefit from the rise in prices than has been the case in any other iron-making district in the kingdom. The fact that nearly all the South Wales makers have, besides their blast-furnaces, puddling-furnaces, rolling-mills, together with collieries, and iron ore royalties, has given them a decided advantage over their Staffordshire brethren, as in that county the several branches of the trade are, as a rule, quite distinct, and four or five have to receive profits which in Wales fall to the lot of one. With all these advantages, however, and some disadvantages, too, which might be mentioned, South Wales soon follows Staffordshire in feeling the effect of an indifferent demand in the market, and of a downward tendency in quotations. A number of blast-furnaces have, it appears, recently been blown-out in Staffordshire, and although I have not, fortunately, to chronicle a similar step in this district, yet it is undeniable that of late the trade has been checked, and it seems as if there was a downward movement to come. As to the probable extent of this downward movement it is quite clear that it cannot be very considerable without a corresponding reduction in the wages of the men, and this latter would be no easy task to accomplish just at present, when the Northern States and the Colonies are such inviting fields for our working men to emigrate thither. The adoption of the increased tariff in America, and a slight falling off in the demand from other quarters, have been the main cause of this. The ironmasters are, as yet, fairly off for orders, but the few specifications given out by buyers during the last three or four weeks indicate that they confidently look forward to sellers being compelled to accept lower prices. The Tin-plate works are moderately well employed, and there is an average demand for coke plates. The American orders are being gradually worked out, and there is every likelihood of several works being unable to keep on full time.

The Coal Trade continues brisk, and there is a large business doing. The re-opening of the West Bute Dock, at Cardiff, will enable merchants to resume their shipments with activity, and clear off accumulated orders. Quotations are maintained for both house and steam, and there is a moderate enquiry for coke.

Mr. Gustav Bischof, of Skelly, near Swansea, has built a reverberatory furnace at the works of Messrs. Roberts, Dale, and Co., Warrington, for the production of finely divided iron, by heating a mixture of pulverised oxide of iron and carbonaceous matter, avoiding fusion. The powdered iron thus obtained is used for the precipitation of copper from its solutions in the manufacture of aniline instead of iron-filings, and for other purposes. In the manufacture of aniline iron-filings may be used as usual, which, having been oxidised, are reconverted into the metallic state as described, thus being employed over and over again. For the precipitation of copper, Spanish or Irish burnt ores, containing a few per cent. of copper, are reduced in the above furnace. Both iron and copper in these ores are converted into the metallic state, and being employed for the process of precipitation, the latter mixes with the copper precipitated from solutions. As by these means the whole copper contained in the burnt ores is extracted, the greater value of such copper to the price paid for the ores fully covers the cost of purchase and reduction, even leaving in most cases a considerable surplus. Trials made with the precipitation of copper from artificial solutions and mine waters, by Mr. Bischof, have amply proved the powerful action of such iron powder. This process, therefore, combines the saving of all costs for iron, with a greatly facilitated and accelerated precipitation.

At the Aberdare Police Court, on Tuesday, before Mr. J. C. Fowler, stipendiary magistrate, and Mr. J. L. Roberts, David Roberts was charged with leaving his work at the Merthyr Dare colliery, on Sunday, May 15, at an improper hour. Defendant did not appear. On the day in question defendant went to work at 6 A.M., and as it was what was called a long turn, he would have to stop at the furnace until the next morning. He left, however, about 2 o'clock in the afternoon, and did not return until 10 o'clock at night, when he was quite drunk. The result was that the fires nearly went out, and the ventilation was seriously interfered with. In consequence of the negligence, the colliers did not go to work until six hours later than usual. Mr. R. H. Rhys, one of the proprietors, attended and pressed the case. Mr. Fowler said Roberts had been guilty of a very gross and dangerous act of carelessness, which could not be overlooked, and, therefore, he would be committed to hard labour for three weeks.

Another colliery explosion has occurred in the district, the Cwm Glyn Colliery, Pontypool being the scene of the accident. One man was killed on the spot, and two others, who received serious injuries, have since died. It appears that the cause of the explosion was that an air-door had incautiously been left open, and the result was that the gas accumulated, and an explosion followed. It has not yet transpired through whose neglect the air-door was left open, but it is to be hoped that a searching enquiry will be made at the coroner's inquest.

At the Bristol Bankruptcy Court, on Tuesday, the last examination and discharge sitting was held in *re* J. Bird, Aberdare, coal merchant. Mr. Henderson, who appeared for the assignees, said he was sorry to inform the Court that the bankrupt had died since his last appearance before the Commissioner. A memorandum of the bankrupt's decease was ordered to be filed, and an order was made to pay out of the estate the accountant who had prepared the bankrupt's accounts. On the same day the last examination and discharge sitting was held in *re* Thomas Thomas, Mynyddyslwyn, colliery proprietor. Mr. Abbot appeared for the assignees, and did not oppose. Mr. Press, for creditors, opposed on the ground that bankrupt had contracted a debt when insolvent, and had brought himself within the clause relating to trading with fictitious capital. His Honour said he saw enough to condemn the way in which the trade of the bankrupt had been carried on, but he could not see his way to decide that the bankrupt had brought himself within either of the penal clauses. The order of discharge was granted.

The latest arrivals at Swansea include—the Frolic, from Antwerp, with 80 tons of pig-iron, to order; Colilna, from Cherbourg, with 300 tons of iron ore, for the Dowlais Iron Company, and 10 barrels of tin ore, for Messrs. Boundy and Voss; Gleanings, from Seville, with 82 tons of copper ore, for Messrs. Richardson and Co.; Patagonia, from Caldera, with 475 tons of copper ore, for Messrs. Henry Bath and Sons.

SWANSEA.—The visit of Mr. Morgan, Government Inspector, has taken place since my last, and the extension of the borrowing powers of the Local Board of Health will result in due course. The Chairman of the new Waterworks Committee (Mr. Alderman Richards) took occasion, at the meeting of the board on Wednesday, to remind those who thought and had stated otherwise (your correspondent among the number), that the visit of Mr. Morgan had nothing whatever to do with the suggestion of Mr. Rawlinson to enlarge the new works. I am very glad to hear it, and that gladness will be shared in by hundreds besides myself, who think that had the "feeler" which had been thrown out by Mr. Rawlinson been quietly accepted, the extension of the already mammoth works would certainly have followed. There has been quite enough money spent already, and the ratepayers have a right to expect a respite. A new rolling-mill has just been added to the well-known copper works of Mr. C. Lambert, at Port Pennant. The progress which these works are making, under the careful and enterprising management of Mr. E. Bath, is fast placing them amongst the most important and best conducted in the district. The enlargements and extensions recently made have been almost incredible, thus showing the great resources of the proprietary, and the extension of this, the staple trade of the district. The prospectus of the Swansea Hotel Company (limited) is before the public. The directorate comprises some of the best names in the district, and there can be little doubt as to the success of the proposed scheme. It was stated some time ago that the principal hotel in the town had been purchased by private enterprise, and that there was likely to be competition in the matter of a local hotel company. Nothing, however, of a tangible character has resulted, further than the belief that something is moving in the direction stated. Just now there is considerable uneasiness among the masons and builders in the town, the former having "struck" for an advance of wages from 22s. to 24s. per week. A similar demand was made by the builders, which demand has been complied with by the masters, and the strike is at an end. Trade is exceedingly good in Swansea, and the hitch alluded to is, just now, a matter to be regretted. The Pavilion Company held a winding-up meeting on Wednesday, when a final call of 1*l.* 12s. 6d. was ordered to be made, after which the company will be dissolved. The company will close accounts with a clear loss of 430*l.*, mainly due to an engagement entered into for the representation of the "ghost" illusion, which proved an utter failure, together with other matters in management, which cannot be here explained.

THE DISCOVERY OF COAL IN BRAZIL.

[FROM A CORRESPONDENT]

Allusion was made in the *Mining Journal* of April 16 to a letter from Dr. Freire, of Rio de Janeiro, questioning the claim of Mr. Nathaniel Plant to the honour of having discovered a valuable coal mine between the Rivers Candiota and Jaguarao, in reply to which Mr. John Plant, of the Peel Park Museum, Manchester, who read before the Geological Society of Manchester the paper containing the statements of claim objected to, has written a long letter, well calculated to remove any erroneous impression that may have arisen. Mr. Plant appears to have written under some slight misapprehension, and thus several inaccuracies have been permitted to gain currency. In the paper read before the Geological Society of Manchester the name of the true discoverer, Mr. W. Bouliech, was carefully kept in the background, being mentioned only in such a manner that in the event of any complaint afterwards arising there would be a loophole for escape. Mr. John Plant stated, in his paper, "that his brother had been exploring the country since 1852, and in 1861 he heard of a rumour from some of the residents at San Pedro, that coal had once been found in the extreme south of the province. He made preparations to explore the district, and it then turned out that Mr. W. Bouliech had observed coal there on the surface, the report of which appears to have reached England, for it was quoted by a writer in the *Quarterly Review* in 1860, and referred to by Mr. Hull, in his work 'The Coal Fields of Great Britain,' in 1861. It was there mentioned as being a 'vast coal field, 60 square leagues in extent, lying about 40 miles from the coast of the Atlantic, in the province of Rio Grande do Sul.' It appears to have been lost sight of [by whom?] until about the end of 1861, when my brother determined to proceed in search of it, and report thereon to the Government."

This is the sole reference which Mr. Plant makes in his paper to the claim of Mr. Bouliech, and that he did not at the time intend that its existence should be recognised at all is evident; for he, making a pounds, shillings, and pence question of the matter, sought to secure the support of the members of the Manchester Geological Society, by informing them that "it would be an important thing for the Brazilian Government, who pay so heavily for coal, if, by aid of a company, they could procure coal in their own empire, and at a price which would pay a good dividend to all parties. Brazilian enterprise is, apparently, not well calculated to carry out successfully any mining operations, either for coals or metals. [He might have added, that with scarcely a single exception, the English money sent out there has never returned.] It requires both English capital and skill to carry out these works, and although *my brother has* the Imperial concession of the Candiota coal field, he feels it will be almost impossible, unless he finds English capital and energy, to make it a blessing, either to Brazil or to the commerce of the world at large." How unfortunate! Mr. J. Plant now admits that his brother is only the middleman between the concessionnaire and himself, and that he is to be the middleman between his brother and the English capitalists. Surely the English capitalist will understand that if the coal exists, as Mr. N. Plant states, and is saleable "at a price that would pay a good dividend to all parties," Mr. N. Plant only needs sufficient capital to buy a pick-axe, and in a couple of months he can break and sell sufficient coal to enable him to purchase all necessary machinery, and get the coal quarry at work on a large scale in about a year. Surely, neither Mr. Plant nor his brother are so very philanthropic as to propose to hand over such a marvellous mine of wealth to the English, with the knowledge they must possess, that it is within the reach of themselves to become millionaires in scarcely more time than would be necessary to float the company.

With reference to Mr. John Plant's reply to Dr. Freire, I do not see that in the doctor's letter, alluded to in the Journal of April 16, he asserts that anyone but Mr. Bouliech is the owner of the Imperial concession, consequently no cause of surprise should exist in Mr. Plant's mind that in his brother's letters he finds "that, whilst mentioning the names of many Brazilians whom he had come in contact with in his 14 years' residence in Brazil, he never once mentioned that of Dr. Freire; nor does the name occur in the printed report in the Brazilian papers; nor in the Imperial decree for exploring the mines, February 6, 1863; nor in the decree granting the concession to Senhor Louis Bouliech, October 9, 1863; nor in the decree granting the land, March 24, 1864—in fact, the name was as strange to me as were his facts about the coal mine or its history." Mr. Plant qualifies his statement as to his brother being the concessionaire, by stating that the Imperial concession of the Jaguarao Coal Mine is to Senhor Louis Bouliech alone, and that he has *legally privileged* the same to Senhor Nathaniel Plant and Senhor Colonel Thomas José de Campos, these two last-named being in the eye of the Brazilian law sole owners of the power to work the mines. Mr. Plant further contends that the Brazilian coal reported upon in the International Exhibition of 1862, by Dr. Percy and Mr. Robert Hunt—to which report, perhaps, Dr. Freire may allude in his communication—was coal sent by the Viscount de Barbacina from the thin surface coal beds in the province of Santa Catharina, and not coal from the Jaguarao Mine, in Rio Grande, so that it may be that the unfavourable report upon the coal in the jurors' report was well deserved. He then continues that "the geological exploration of the Jaguarao coal field is now completed by my brother, and that he has discovered thick beds of Cannel coal, as pure as any ever raised from the mines of Wigan; the intervening beds of ironstone and shale are also rich in true carboniferous fossils. Mr. W. J. Smyth, the railway engineer, has finished his survey for a railway to the coal mines, a distance of 50 miles in a direct line; but his track traverses a district over 100 miles in length. His estimate of the cost is 700,000*l.*, upon which it is anticipated the Imperial and Provincial Government will guarantee 7 per cent. No estimate for the coal mine has been definitely fixed."

The latter part of this statement is scarcely to be wondered at, for it must be evident that the estimate could not exceed so small a sum that any gentleman of ordinary means could supply it, and it would thus be difficult to avoid its becoming a question whether the reason for offering the property for sale is not that it cannot be profitably worked.

THE DRESSING OR MECHANICAL PREPARATION OF MINERAL ORES.

[Notes from a Lecture by Prof. W. W. SMYTH, Royal School of Mines, London.]

We now come to a branch of mining which may not at first sight seem to fall within the province of the miner, yet is still a most important branch of the subject. It is the mechanical preparation to which ores have to be subjected after they are dug out of the mine. It is a common expression to say that a metallic ore is worth so much at the mouth of the mine, which is not strictly correct, as by it is meant the ore after preparation at the surface for the market. Now, different classes of ore demand different treatment to fit them for sale. Thus, in the case of some ores it is absolutely necessary to raise the percentage to a certain point before the smelter will purchase it. It follows, then, that a poor vein of a valuable metallic ore will be better worth treating, it may be elaborately, than a rich vein of ore of the less valuable metals.

The general state in which all ores come to the surface is as an admixture of stones of various sizes, and of different degrees of purity, each size, and each quality of which mass will require a different course of treatment. Now, when we look closely at the metallic products of the various mining districts of the world, we shall see that the mechanical appliances for the separation of their metallic contents is carried to a greater pitch of perfection in some districts than in others. In examining the circumstances under which different ores may be raised to the surface and prepared for sale, the difficulty is to determine whether it will repay the miner to draw an ore beyond a certain pitch. Before entering on this point we may explain a common expression amongst miners, who tell us that they have a lode of such a width of solid ore; now, this in reality is rarely the case, as in almost all veins there is a certain proportion of impurity.

With respect to the question, whether a vein will pay for working or not, we have several considerations, such as the intrinsic value of the ore, the land carriage, if at any distance from the coast, &c., which considerations materially affect the value of such deposits as those of iron and coal, but not so much those of the more valuable metals. As regards ores of galena, they are generally found impure. Now, the requirements of the English smelter are that the ores of lead shall be dressed to from 70 to 75 per cent of metal in the ore. In many instances, however, this state of purity cannot be attained in many of our poor English ores, and, consequently, in the sale of these the miner is a great loser. This seems hard on the miner, since we find the continental smelters buy inferior ores at a fair rate. Now, with tin ores the smelter requires that they shall be dressed to upwards of 60 per cent. of metal in the ore; which often, from the hardness of the capel in which the tin is found, as also from its minute dissemination throughout the vein, demands a most elaborate series of processes. The high value of the ores of tin, however, when properly dressed, enables the miner to work with profit ores containing not more than 1 per cent. of black tin. In the case of copper ores, the smelters can reduce very low percentage ore, so that copper ores do not require much preparation for the market, the average percentage of all the ores sold in Cornwall not being above 6 to 7 per cent.

When, however, the value of an ore is greater than that of the baser metals we have mentioned, and are such as an argentiferous lead ore, the miner can afford to go to a great expense in preparing the ore for market. As to gold, the most valuable of all metals, the minute percentage that will pay for extraction is astonishing. For many years, we may almost say for hundreds of years, the gold mines of the Tyrol and Hungary have yielded much less than 1 ounce per ton of stuff dressed, and yet paid for working. In the mine of St. John del Rey (now yielding large dividends) the amount of gold does not exceed ¼ ounce per ton of stuff. At Cremnitz they work gold veins 200 fms. from surface, bring the ore up, and pay the expenses of dressing, when it does not yield above 2 ozs. per 50 tons, and when the amount of gold is above that quantity it yields a profit. These considerations being introductory to the subject of the mechanical treatment of metallic ores, we have to consider the processes needed in preparing non-metallic bodies for the market.

In the majority of cases we shall find that coal requires some kind of preparation, as the division of the large from the small, washing, &c. Another non-metallic body, kaolin, or china-clay, which is derived from the decomposing granite of Cornwall, requires to undergo several processes, which demand attention from the commercial importance of this body. Let us see now how it is carried out practically, and suppose a great mass of decomposing granite has to be treated. The miner first stopes away a piece of the granite, and lets a stream of water flow over the edge, and assists the disintegrating powers of the water by a pick, and in this way the decomposing particles of the stone are carried away in suspension in the water. Now, the loaded stream is first allowed to flow through a pit, where its velocity is hardly checked at all; here will be deposited the quartz and rougher particles, and the liquid will escape, still holding in suspension the mica and kaolin. To separate the mica, the stream is turned into long pits, in which the velocity of the water is slightly checked, and this stage is most important, from the necessity of separating here the whole of the mica. The escaping water, then, from these pits should only contain the china-clay in suspension, and to effect its separation the stream is turned into a deep reservoir, from whence, after a short rest, the water is let off, and the liquid clay run into shallow reservoirs, where it becomes hardened by exposure to the atmosphere, and is then cut into blocks for the market.

Let us now consider the arrangement of the surface ground of a mine, or the dressing-floors; and in this the great thing is to secure a good fall of ground from the mouth of the mine, for dressing purposes. And where the surface of the ground is quite flat, it may be well to make an artificial slope by means of the attles from the mine; and this is particularly desirable in collieries. Such a fall will of necessity assist in the mechanical processes the ore has to undergo, since by it we avail of the natural tendency of all bodies to fall. The next point is to deliver the ore, where it is possible, from the mouth of the mine into reservoirs or hoppers, in which it may remain till required. This sort of arrangement is not so much needed where the men are all tutwork men, but when they are tributers it is highly important to keep separate each man's parcel, until the captain has properly valued them. The ore ought then to be brought in railway cars, over a series of hoppers, divided from one another as they are in Cornwall, by wooden partitions, or better still, by stone, and provided with bottoms sloping outwards, with a brick wall in front, in which there is an opening for the ore to be taken through. The hoppers may be emptied by manual labour, or by the force of a jet of water running through them. Water, however, it must be remembered, should never touch some ores. When the ore leaves the hopper, the next point to be considered is its subdivision, and under this head we may state that there is nothing more important than the separation underground of the stuff according to its quality. The advantages of this are that the admixture of worthless rock with rich ore deteriorates the value, enhances the cost of dressing, that the cost of drawing the worthless stuff is great, and that this stuff is always required underground, and valueless at surface.

The principal divisions of our subject—the dressing of ores—are three:

I.—Washing and picking of the ore.

II.—Comminution to the state of grains, or fine powder.

III.—Concentration.

The ores of silver, from their great value, are generally brought up from the bottoms of mines in bags. The assertion that some ores, such as the black oxide of copper, should never be touched with water will explain the anomaly, that the produce of some mines is low, when we know the value of the ores they yield is great; and this will always be the case where the loss in dressing is greater than the advantages of high produce.

When the ore comes from the hoppers it is brought on to grating-tables, that is, tables made of bars—through which the fine ore passes, the larger particles being retained on its face, where it is picked by hand, and the qualities separated. The introduction of the revolving griddle was a great improvement on this old plan, and it has been successfully applied to the cleaning of coal.

In dressing tin or gold ores such an arrangement is not required, as the ore exists disseminated through large quantities of stuff, requiring that the whole mass be sent direct to the stamps. With respect to the picking, it will be found cheapest to let it by contract. The different qualities of ore obtained by picking receive different names in different districts. That first is called the "prill" in the South of England, and "bin ore" in the North. The second quality, in the West "dradge," in the North "knockings." Then comes the still inferior, which is called in the West "halvans;" and that which contains no ore at all is called "deads," or "

les." The instruments used for breaking up the large pieces of ore are hammers of varying forms, as cobbing hammers, &c., which are called in the North "knockstones."

In certain mines machines are required to get rid of slimy matters in ores, such as is found in the Tamar mines. In some of the Hungarian mines also there is a thick tenacious clay to be separated from the ore. A simple mode of effecting this separation is to run the ore through a rotatory machine, in which there are a series of teeth continually in motion, by which the particles are kept apart for the action of the water.

PLAIN PAPERS ON GEOLOGY—No. III.

BY THOMAS STRUTHERS.

IGNEOUS ROCKS—THEIR PETROLOGY.—Having in a former Journal offered some observations on the lithology, or mineral composition and internal structure of the igneous rocks, we have now to take a glance at their petrology, or position and appearance as rock masses. With regard to basalt, the term is, by some, supposed to be descriptive of the columnar form which that rock frequently assumes; but it is, perhaps, more correctly considered to be derived from an Ethiopic word signifying iron. The columnar structure referred to is not confined to this rock, and neither is it a property essential to it, for greenstone, felstone, and pitchstone are found in columns, and basalt presents itself also in amorphous masses. The columnar arrangement of the rocks referred to appears to be the result of mechanical action, and not of any peculiarity in their chemical composition, being probably due to a rude crystallisation taking place while the rock was cooling under pressure, and effecting the formation of globular masses, which pressed against each other, so as to assume the pillared form. Such a structure has been produced in basalt artificially, by fusing it in a furnace, and allowing it to cool slowly. Indeed, slow cooling appears to be essential to the formation of these columns, and the doctrine that they are arranged at right angles to the cooling surface, or in the line of radiation or conduction, receives confirmation in several localities in Scotland. One example may be instanced. Dumbuck Hill, near Dumbarton, consists mainly of tufa, which surrounds a core of basalt, shooting up at the summit in perpendicular columns, while at the base where the basalt has been exposed, partly by denundation and partly by quarrying, the columns are so arranged as to indicate that the heat had less difficulty in finding a passage into the surrounding tufa than upwards through the superincumbent mass of basalt; while irregularities in the shape and position of the columns probably indicate irregularities in the rate and direction of conduction. Columnar felstone is not common in Scotland. Prof. Nicol, in his "Geology of Scotland," states that it occurs only in the Eildon hills, but it also occurs in the Campsie hills. The late Hugh Miller gives an account of columnar pitchstone in the island of Eig, one of the Hebrides. Columnar greenstone is found in many localities. The extended flows of trap that have assumed this structure have probably taken place under deep water, which would retard refrigeration, water being a worse conductor of heat than land, and in such a case we would expect the columns to be perpendicular.

It is interesting to study the relation of the igneous rocks to the strata with which they are associated. In some instances they form overlying masses, and are, consequently, newer than the strata on which they rest. They frequently intersect the strata, and form what are called dykes, while flats or beds are sometimes both underlaid and overlaid by stratified rocks; and, in the latter case, if there be evidence to prove that they have not been injected, but formed during the deposition of the sedimentary materials, they are distinguished as interstratified or contemporaneous. Bosses of trap, simply protruding through the strata, without overlying, are described as disruptive. Intrusive traps have evidently, in most cases, been in a highly heated state. The appearance presented by the sedimentary rocks with which they come in contact cannot be assigned to any other agency than that of fire. Chalk is converted into a hard granular marble to a considerable distance, the different gradations of heat being indicated by corresponding gradations in the colour and texture of the scorched mass. Shale, a soft, slaty, clay rock, is converted into jasper, a substance so hard as to resist a file. Sandstone is converted into a hard flinty rock, and coal into coke, cinders, or soot. In many instances, too, the heat has been so intense that there appears to have been at the junction a commingling of the two different rocks, producing an intermediate variety of rock, shading off to the trap on the one hand, and the stratified rock on the other. The less compact varieties of trap rock appear to have been derived from the same volcanic sources as the greenstones and basalts, and spread out in the form of mud or ash, which has in most cases been subsequently overlaid and compacted by streams of molten rock matter.

With regard to the general appearance of Plutonic rocks, which, as previously explained, include the different varieties of granite, from the peculiar circumstances under which they are believed to have been formed, the rocky masses consisting of them differ somewhat from the trap rocks, not only in colour, form, and texture, but in the position in which they occur. They have a confused crystalline texture, and do not appear to have flowed in molten streams over the surface of the earth, as traps have done. There are certain other mechanical features by which they are distinguished from trap rocks, such as the absence of a scoriaceous or tufaceous texture. They do not assume the distinctly columnar form common in trap rocks, neither are they amygdaloidal; but they not unfrequently exhibit a porphyritic structure, which is known only in igneous rocks. Granite varies much in texture, being sometimes a large grained and loose mixture of the different ingredients, and not unfrequently so close and fine that it is difficult to discover its granitic structure without the aid of a magnifier. There is an apparent analogy between the Plutonic and volcanic rocks, in the fact that granite, in some localities, sends forth veins not only into the sedimentary rocks, but even into older granites. These veins are more sinuous than trap veins, and in certain cases, like them, have apparently originated at different periods, the newer intersecting the older.

Although granitic rocks appear to have been developed at various periods, generally speaking they are associated with the earlier sedimentary formations, and may be regarded as the most ancient unstratified rocks; but much difference of opinion still exists as to the relative age of the different igneous rocks, and the fact of their containing no fossil remains, as well as the absence of well-defined lines of demarcation, such as exist between formations of the stratified rocks, distinguished by mineralogical characters, renders conclusions on this head difficult and doubtful. The principal test of the age of the igneous rocks is the position they occupy in relation to the strata, although, no doubt, experience leads to the conclusion that some igneous rocks are more specially associated with the stratified rocks of a particular system. Thus, the thick beds of volcanic ash, wacké, and tufa, in Scotland, appear to be, for the most part, contemporaneous with the earlier stage of the carboniferous system, while the more compact greenstones and basalts are newer, and the felstones are commonly associated with strata of older date. Although granite appears to be of different ages, and forms many extensive mountain ranges, it is believed to be the lowest solid rock in the earth's crust.

One word on the analogy between trap rocks and the rock products of modern volcanoes. To support the theory of the volcanic origin of trappean rocks, we must be able to point out a similarity of character between them and the volcanic rocks of the present day. Among the ancient rocks of presumed volcanic origin we find porous, drossy masses, which we call scoriæ, and rocks of the same mechanical structure are produced by existing volcanoes, while there are in Scotland loose ashy beds, almost identical with the rocky envelope that sealed the fate of Pompeii, and many of the rocks of Etna are scarcely distinguishable from our basalts and greenstones. It is observed, however, that certain rocks formed by volcanic agency in the present day are more glassy in their appearance than the trap rocks, and it may be necessary to account for this dissimilarity by pointing out the different circumstances under which they were formed. It is evident, from an examination of the contents of the stratified rocks, that during the primary and secondary periods the relative proportion of water to land was much greater than subsequently, and that a very large portion of the globe was covered by a deep sea. The proof of such a statement is based on the fact that the stratified rocks, older than the tertiary, are very widely distributed, and contain chiefly marine organisms. No doubt the existence of beds of coal, and the occasional occurrence of fresh water mollusca, and of the remains of terrestrial animals, afford evidence that some portions of our present land surfaces were, even in these early times, elevated above the waters, yet they were, probably, only detached islands, scattered in the watery expanse. It follows that the majority of trap rocks then formed must have been submarine lavas, and hence we see a distinction between ancient lavas and those of the present day, which, wherever they come under our observation in the course of their formation, are necessarily subærial, or at least consolidated in shallow water.

There is also a more remarkable analogy between these rocks in their chemical composition. Comparing the granitic rocks with the traps, we find that they consist essentially of the same constituents—silica and alumina, with occasional minerals; but in the granites a portion of the silica remains uncombined, or free, while the whole mass presents a more crystalline structure than the traps do. The analogy between trap rocks and those of modern volcanoes is more complete. The former consist principally of a granular mass of felspar (silicate of alumina), modified by augite, or hornblende, with other minerals that affect their general character to but a small extent; and the products of modern volcanoes differ but little from them in composition. Modern lavas have been classed as *augitic*, or *basaltic*, and *felspathic*, or *trachytic*, and the same classification might be applied to the trappean rocks; while the columnar form of certain traps is not unknown among modern volcanic products. The rocks of the earth's crust, it would appear, then, are divided into stratified and unstratified. The former owe their origin to the operation chiefly of water, and the latter of fire. Modern igneous products we distinguish as volcanic rocks, to indicate their undoubted origin. The ancient unstratified rocks, in reference to which our knowledge must necessarily be speculative, we divide into the trappean and Plutonic, each class comprising several varieties. The former may be regarded as distinguished by felspar in a granular form, and the latter by free silica; while the modern volcanic rocks and the traps present such a remarkable analogy in position, mechanical structure, and mineral composition, that, making allowance for the different circumstances under which they appear to have been formed, the ancient volcanic, or trap rocks, being mostly submarine lavas, and those of recent date—at least, such as come under our observation—being either subærial or consolidated in shallow water, we are justified in assigning both to the same origin.

IMPROVEMENTS IN REFINING PIG-IRON.—A very ingenious and economic arrangement for refining crude pig-iron has been patented by Mr. Geo. Parry, of Ebbw Vale Ironworks. Immediately in front of the blast-furnace he builds two large reverberatory furnaces, connected with the same stalk, so that they may be alternately changed. The reverberatory furnaces are like ordinary puddling furnaces, except that the fire and flue bridges are higher, so that the flame may impinge nearly vertically on the metal; there is a steam tuyere immediately behind the fire-bridge, and two air tuyeres further back. The iron is run direct from the blast-furnace into the refining furnace, and when sufficiently treated is tapped in the usual manner. The inventor claims to be enabled to refine iron with from 2 cwts. to 2½ cwts. of coal, instead of 6 cwts. to 8 cwts. of coke, as generally used. The furnace is particularly adapted for refining bright, grey, mottled, and very fluid white iron.

IMPROVEMENTS IN LOCOMOTIVES.—In order that the exhaust steam from a locomotive engine may be more advantageously condensed when the engine is passing through tunnels, Mr. E. Slaughter, of the Avonside Ironworks, Bristol, proposes an arrangement of apparatus which is thus applied. On the passage leading from the steam-cylinders into the chimney a cock or valve is applied, and also a branch pipe leading to a surface condenser, in order that the exhaust steam may be for a time shut off from the chimney, and during such time turned into the surface condenser, which is formed of tubes or narrow passages, that are exposed to the atmospheric air, in order to admit of an extensive area of surface being acted on by the atmospheric air as the locomotive engine moves quickly along a railway. This condenser is conveniently constructed of long tubular passages, arranged in a direction from the cylinder end of a locomotive engine to the other end thereof, where an injection condenser and air-pump, such as are used in low-pressure engines, are situated. The water-tank is divided, or is in two parts, and a connecting pipe is applied to one of the parts, in order to supply cold water injection to the condenser, whilst the water resulting from the condensed steam is pumped into the other, or hot water, compartment of the water-tank from which the boiler is supplied. The ash-pan is also arranged, as has heretofore been done, so as to be closed when the exhaust steam is shut off from the chimney.

RAILWAYS IN CHINA.—The proposition to introduce railways into the Chinese empire, coupled with the expression of a confident opinion that the Chinese themselves will be found quite ready to contribute a fair proportion of the capital required for their construction, would a few years since have been received with discredit by everyone, and would have earned for the advocate of the enterprise anything but praise; yet so many benefits have been acknowledged, even by uncivilised peoples, to result from railway communication, that it is no longer unreasonable to anticipate that the extension of the railway system to China will be appreciated by the Chinese, and prove commercially remunerative to those embarked in it. An elaborate report upon the feasibility and most effectual means of introducing railway communication into the empire of China has been prepared by Sir Macdonald Stephenson, accompanied by a comprehensive explanatory map. Sir Macdonald tells us that the Imperial Government are alive to the value of European improvements, and are only deterred from their open recognition and adoption by the apprehension of ulterior objects, adverse to the interests of the State, influencing those who recommend them, and he considers that the removal of these unfounded causes of distrust will at once remove the obstacles which have so long barred the path of progress in China. There are many indefatigable labourers steadily endeavouring to infuse among the people an appreciation of those modern scientific appliances which have contributed so materially to European prosperity and wealth, and he very truly remarks that it is a question of no ordinary magnitude or importance whether railway and telegraphic communication, with all the attendant benefits, shall be bestowed upon or denied to one-fourth of the human race. Great changes require time to bring them to maturity, but a commencement once made, and perseveringly followed up, time soon ceases to be a considered element. It seems that the subject of railways in China was first brought to the notice of Sir Macdonald Stephenson by Mr. M. A. Macleod, a retired member of the eminent China house, Jardine, Matheson, and Co., who during his long residence at the various treaty ports gave great attention to the subject. The warmth with which Mr. Macleod urged the practicability and advantages of railways induced Sir Macdonald to go out to China and judge for himself, and the result has been to impress him with a favourable opinion. It might be supposed, he says, that past experience had disposed of all doubt as to the advantage and value of railways in any country in which they could be economically constructed; but prejudices are strong, and in the application of these works to a new country the question requires to be considered and set at rest before more active measures can be taken. With this view, he consulted the opinions of the principal merchants, whose knowledge of the country entities their views to consideration, and he has ascertained that as regards possible delay in official negociation, and from the unsettled state of the interior, the opinions vary; but as regards the undoubted advantages to the country, the people, the Government, and to the European trade, there does not appear to be a single dissentient to the conviction that their value cannot be over-estimated. Application has been made to Li, the Imperial Commissioner and Governor of Keangsoo, for a concession for a line from Shanghai to Soochow, with the necessary rights and immunities, so that this may not be the last we shall hear of railways in China.

PROPS AND SUPPORTS FOR MINES.—The use of props and cross pieces in pits and mines is for the purpose of supporting the roof or strata overlying the coal, and preventing them falling into the open space after the coal or other mineral has been wrought. In the working of coal and other mines props of timber and cast-iron and cross-pieces of timber have been used; but when the weight of the roof rests on cast-iron props they become brittle and liable to fracture. The timber props and cross-pieces are not in all cases adequate to support the pressure of the roof, and break or bend below the weight, thus causing a loss of material. Both timber and cast-iron props have a tendency to sink into the bottom or floor of the mine; their utility is thus lessened or destroyed, and the great size and weight of cast-iron props cause their use to be most expensive. The pressure to which cross-pieces are subject renders it necessary that the timber employed in their construction should be of considerable thickness, and this injuriously lessens the height of the galleries in the mine. To obviate these difficulties Mr. George Elliot, of Betley Hall, Stafford, has patented an invention, which consists in making both props and cross-pieces of wrought or malleable iron, whereby greater strength is obtained, less expense incurred, and more room is gained for the galleries of the mine. The wrought or malleable iron props may be solid or hollow, and of any convenient shape, but he prefers to form them with a section of three ribs, equidistant, springing from a centre, or four ribs forming a cross. He also proposes to employ shoes of metal or wood to support the props, and to interpose similar blocks between the top of the props and the horizontal cross-piece. Other parts of the invention in forming the horizontal cross-piece, with its two ends bent at right angles, or nearly so, in order to grasp the interposed blocks or top pieces on the said props, and prevent their coming loose owing to the deflection of the horizontal cross-piece. Mr Elliot also claims the use of horizontal cross-pieces, or bars of wrought or malleable iron, with or without the use of shoes or top pieces, in connection with props or uprights, of whatever material composed, and the use of shoes or footings for the reception and support of such props or uprights, of whatever material composed.

THE CLEVELAND IRON DISTRICT.—At the Darlington Iron Company's works (Messrs. Barningham's), something like 1000 hands are usually in full employment, but at the present time the amount of work is not being done that could be desired. Orders which will extend over a considerable period are on hand. The South Durham Iron Company are employing their usual number of workmen, and trade continues steady. At the Skerne Ironworks, recently opened by Messrs. Pease, Hutchinson, and Ledward, there are some 200 hands at present at work, manufacturing ship and boiler-plates. It is anticipated that in the course of two months the entire works of this firm will be in full operation, when between 400 and 500 hands will be constantly employed. The prices of Cleveland pig-iron are as follow:—No. 1, 56s.; No. 2, 55s.; No. 3, 53s.; No. 4, 50s.; mottled, 50s.; white, 50s.; refined metal, 70s. per ton, four months' bill. Warrants:—No. 1, 57s. 6d.; No. 3, 53s. 6d., f.o.b. nett. Manufactured iron is in good demand, at slightly reduced prices.

In consequence of political complications, and the great falling off in demand within the last few weeks, stocks of pig metal are accumulating in this district at a greater pace than for some years past. It is looked upon, however, as a temporary matter, hence prices are very well maintained under the circumstances, and there seems no signs of Cleveland following the example of Staffordshire, where within the last four months it is reported that, owing to the adverse state of trade, 22 furnaces have been put out of blast. All the furnace on the Stockton and Darlington and West Hartlepool lines, with but one exception—Consett—still continue in blast, as will be seen from our usual weekly statement. The new works of Messrs. Fox, Head, and Co., at Middlesbro' are progressing rapidly, and it is expected they will commence rolling about Sept. Messrs. Hopkins and Co.'s new forge-mill has got to work, and this firm is now erecting about 30 new puddling-furnaces and two steam-hammers (Joy's patent). Messrs. Stevenson, Wilson, Jaques, and Co. are engaged in pile driving for their new furnaces. They have got a good foundation. A foundry is about to be built adjoining the new works of Messrs. Fox, Head, and Co. The partners are Messrs. Tregelles and Flintoff.

State of the blast-furnaces of the district on June 3:—

Place and owners.	In.	Out.	Total.
Eston—Bolckow and Vaughan	9	—	9
" Clay-lane Company	3	—	3
" South Bank Company	3	—	3
Cargo Fleet—Jones, Dunning, and Co.	2	—	2
" Cochrane and Co.	4	—	4
" Gilkes, Wilson, Pease, and Co.	5	—	5
Middlesbro'—Bolckow and Vaughan	4	—	4
" Hopkins and Co.	2	—	2
Port Clarence—Bell Brothers	6	—	6
Norton—Warner, Lucas, and Barrett	3	—	3
Stockton—Holdsworth and Co.	3	—	3
Ferry Hill—J. Morrison	3	—	3
Thornaby—W. Whitwell and Co.	3	—	3
Darlington—South Durham Company	3	—	3
Witton Park—Bolckow and Vaughan	4	—	4
Stanhope—Weardale Iron Company	1	—	4
Towlaw—Weardale Iron Company	5	—	5
Consett—Derwent Iron Company	7	11	18
Total	70	11	81

The iron shipbuilding trade in this district is very active. The yards are in full work, and on the Tees alone are building, or about to be built, six large steamers (3000 each), and about 20 more of smaller dimensions.—*Darlington and Stockton Times.*

A STEAM-PUMP, intended for feeding boilers, of a very novel construction, is now at work at Messrs. Kittoe and Jackson's, Compton-street, Clerkenwell. This pump has neither fly-wheel, crank-shaft, nor connecting-rod. It is very unlike anything else of the kind in existence, is extremely simple, and will run at any speed up to 200 strokes or more, per minute, with ease and certainty. This pump, from its extremely small size for a given power, and great simplicity, seems admirably adapted for feeding every description of steam-boilers without exception. It may be said to take an intermediate place between the ordinary feed-pump and the injector, possessing many advantages common to both.—*Mechanics' Magazine.*

ROASTING ORES.—Mr. J. B. Britton's furnace for roasting ores was exhibited at the Franklin Institute. In this furnace the ore is contained in a central chamber, across which the products of combustion from the fire-place are caused to pass regularly in one direction. By a discharging device, the rate of descent of the ore through the chamber can be regulated at pleasure, so that each particle of ore can be submitted to the action of the fire for any length of time desired. By carrying the draught across the chamber the sulphurous and other deleterious vapours are taken direct to the chimney, and are not brought in contact with the ore, which remains to be roasted as in ordinary kilns.—*U. S. Railroad and Mining Register.*

DEATH OF A RICH COLLIER.—Mr. Richard Kear, coal operator, died at his residence in Minersville, Schuylkill County, recently, aged 58 years. Mr. Kear, at the time of his death, owned property valued at $1,100,000. He came to that region in 1829, and worked as a miner at day's wages until 1835, when he commenced working a small colliery of his own. Between that time and 1849 he met with the "ups and downs" incident to the business, and was sold out twice by the Sheriff. The last time his property was bought in for him, and in 1849 he commenced prospering, and from that period up to the time of his death his accumulations amounted to the sum stated above. —*United States Railway and Commercial Register.*

RAILWAY CALLS.—The amount falling due in June is 904,706*l.*—making the total called during the six months of 1864, 6,768,493*l.*

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before MONDAY, the 13th Instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply— CAKE COPPER.

And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M. of the said 13th day of June, 1864, after which hour no tender will be received. GERALD C. TALBOT, Director-General.

India Office, June 3, 1864.

SOUTH-EASTERN RAILWAY—CONTRACT FOR HARD STEAM COAL.—The Directors of the South-Eastern Railway Company are PREPARED to RECEIVE TENDERS for the SUPPLY of TEN THOUSAND TONS of HARD STEAM COAL, suitable for locomotive purposes, to be delivered in trucks on to the company's line at Reading.

Tenders to be sent in on or before Wednesday, the 22d June inst., endorsed "Tender for Coal," addressed to the undersigned. S. SMILES, Sec.

London Bridge Terminus, June 10, 1864.

QUEBRADA LAND, RAILWAY, AND MINING COMPANY (LIMITED).—This company being about to SEND OUT a small MINING STAFF to VENEZUELA, are READY to RECEIVE APPLICATIONS from COMPETENT PERSONS.—Applications, stating full particulars, to be addressed to W. J. DUNSFORD, Esq., 9, Broad-street-buildings, E.C.

STEAM ENGINE.—WANTED, for the GREAT LAXEY MINING COMPANY, ISLE OF MAN, a 20 in. HORIZONTAL HIGH PRESSURE ENGINE, from 4 to 5 ft. stroke, with CORNISH BOILER from 8 to 10 tons weight.—Particulars, with price and the earliest time at which delivery of the same can be made, to be sent to Mr. R. ROWE, manager, Laxey, Isle of Man.—May 18, 1864.

WANTED, a MINING CAPTAIN, who has a thorough practical knowledge of quartz mining, and also of the reduction of the ores, to TAKE CHARGE of a GOLD MINE in THIS COUNTRY. Testimonials to be sent with application, stating age and remuneration required.—Apply to "T. W.," care of Messrs. W. Brown and Co., 40, Old Broad-street, London, E.C.

WANTED, by a Cornish captain, a SITUATION, at home or abroad, either in a TIN, LEAD, or COPPER MINE, as UNDERGROUND AGENT or DRESSER. The advertiser has had many years' experience, and is well acquainted with mining in all its branches. Testimonials as to character and ability, with unexceptionable references, can be produced.—For particulars, apply to "G. O.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

WANTED, a SITUATION as MASTER SINKER. The advertiser has had many years' experience in extensive sinking concerns, both in England and Scotland. References, &c., if required.—Address, "A. B.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

AN ENGINEER, whose experience extends from the work-bench to the highest position in the shop, DESIRES IMMEDIATE EMPLOYMENT in any capacity which will enable him to earn a livelihood. Is a good workman, and thoroughly understands his business. The advertiser has written and lectured on steam and the steam-engine.—Address, "K. T.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

A GENTLEMAN, who for the last 6½ years has been in the DRAWING OFFICE of one of the largest IRON (MANUFACTURING) WORKS in the NORTH OF ENGLAND, is OPEN to an ENGAGEMENT. Good testimonials.—Address, "H. H. W.," MINING JOURNAL office, 26, Fleet-street, E.C.

TO CAPITALISTS.—WANTED, a PARTNER, with from £5000 to £10,000, in a FIRST-CLASS COLLIERY in NORTH WALES. A colliery proprietor or mining engineer preferred, but not essential.—Address, "W. 15," Post-office, Liverpool.

TO IRON MANUFACTURERS.—A PARTY in GLASGOW, who has an extensive connection, and who could influence a large trade with Clyde shipbuilders, DESIRES a FIRST-CLASS AGENCY for ANGLE and T-IRON, SHIP and BOILER PLATES, and SHEET IRON, or for any of these singly.—Address M. A. C.," care of Messrs. Anderson and Watt, 64, Buchanan-street, Glasgow.

TO COAL PROPRIETORS.—TO BE LET OR SOLD, the WHOLE of the COAL UNDER the RED HEUGH ESTATE, near NEWCASTLE, being about TWO HUNDRED ACRES in EXTENT.—Apply to Mr. JOHN CONWAY, miner, Rabbit Bank, near Gateshead; or Mr. BINTLEY, Kendal.

FOR SALE, complete SETS of the MINING JOURNAL for the years 1860, 1861, 1862, and 1863. Also, several extra odd numbers.—Apply to "C. U.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

FOR SALE, the RIGHT to the PATENT of a VALUABLE IMPROVEMENT in VALVES and BUCKETS for PUMPS, and in VALVES or COCKS for OTHER USES.—For particulars, apply to Mr. W. T. RAWLE, patent and mining agent, 39, Budge-street, Bristol.

FOR SALE, 19½ in. FORCING PUMP, 14 in. LIFTING PUMP, HAND PUMPS, pumping crank, lifting screw, pit chain, and other colliery material.—Apply to Mr. JOHN FARLER, Nailsea, near Bristol.

TO BE LET, a FEW BROAD GAUGE TEN TON COAL WAGONS.—Apply to Mr. D. WILLIAMS, Water-street, Llanelly.

SPIEGELEISEN.—SPECULAR PIG IRON, of the VERY BEST QUALITY, £7 10s. PUDDLED STEEL, in ◇-bars, £11 10s., f.o.b. at Hull. Samples on application. JULIUS GOLDSTEIN, Hamburg.

BEST MANGANESE SPIEGELEISEN DELIVERED at ANY PORT of the UNITED KINGDOM.—For testimonials, and all information, apply to WM. BIRD and Co., 2, Lawrence Pountney-hill, London, E.C.

DIVIDEND TEN PER CENT. PER ANNUM.—TO BE SOLD, FIVE HUNDRED SHARES (of £1 each, fully paid-up), at par, in the WIVELISCOMBE SLATE COMPANY (LIMITED).—Apply to Mr. RUNDALL, 43, Moorgate-street, City.

TO INVENTORS AND PATENTEES.—A GENTLEMAN having an extensive connection with manufacturers, merchants, and others, would be GLAD to UNDERTAKE the SALE of INVENTIONS or PATENTED ARTICLES, on commission.—Apply to Mr. RAWLE, patent office, 14, Clare-street, Bristol.

N.B.—Continental and foreign agencies solicited.

SWANSEA COPPER ORE WHARVES,

Swansea, January 1, 1864.

GENTLEMEN,—We beg to inform you that, in consequence of the retirement of Messrs. W. and J. M. Williams from the copper ore trade, which they have carried on here for so many years past, we have resolved to enter upon that business, and for which purpose we have secured most eligible wharves, on the west side of the North Float, where vessels drawing 20 ft. of water can get alongside at all times. These wharves are now being covered in, and, together with a steam crusher now erecting, will, we expect, be completed in two or three weeks from this date.

The business we purpose carrying on is that of copper ore wharfingers, combined with metal and other general agencies, which will be managed by our Mr. Thomas Elford, who for 20 years has filled an important situation under Messrs. Williams, Foster, and Co., and for the last eight years has had the entire management of their large copper smelting works, and copper and metal rolling mills, in this locality, as well as the copper ore business of Messrs. W. and J. M. Williams, which we trust will be a sufficient guarantee to our friends that any business they may entrust to our care will be conducted with the most scrupulous attention to secure the best results for their interests.

Soliciting a share of your consignments of ore, regulus, and slab copper to this port, as well as a share of any general business you may have to transact in this quarter,

We remain, Gentlemen, your obedient servants,

ELFORD, WILLIAMS, AND CO.

REFERENCES:—Messrs. Williams, Foster, and Co., London and Liverpool; Messrs. Williams, Harvey, and Co., London and Liverpool; the Glamorganshire Banking Company, Swansea; Messrs. Alex. Bell and Sons, No. 8, Finch-lane, London.

Gun Cotton Manufactory.

MESSRS. THOMAS PRENTICE AND CO.,

GREAT EASTERN CHEMICAL WORKS, STOWMARKET, SUFFOLK.

This manufactory has been established for the purpose of preparing GUN COTTON, according to the Austrian process, and was opened on the 26th of January last, under the inspection of Baron Lenk. Messrs. Thomas Prentice and Co. are now able to SUPPLY GUN COTTON, in its most approved form, either for the purposes of engineering and mining, or for military and submarine explosion, and for the service of artillery, as a substitute for gunpowder.

The advantages of Baron Lenk's GUN COTTON are the following:—

FOR PURPOSES OF ARTILLERY.—The same initial velocity of the projectile can be obtained by a charge of gun cotton one-fourth of the weight of gunpowder. There is no smoke from the explosion of gun cotton; it does not foul the gun, nor heat it to the injurious degree of gunpowder. There is much smaller recoil of the gun. The same initial velocity of projectile is produced, with a shorter length of barrel. In projectiles of the nature of explosive shells it breaks the shell more equally into much more numerous pieces than gunpowder. When used in shells, one-third the weight of gun cotton produces double the explosive force of gunpowder.

FOR CIVIL ENGINEERING AND MINING. In driving tunnels through hard rock a charge of gun cotton of given size exerts double the explosive force of gunpowder, thus a smaller number of holes is necessary. It may be so used as, in its explosion, to reduce the rock to much smaller pieces than gunpowder, and so facilitate its removal. As gun cotton produces no smoke, the work can proceed much more rapidly, and with less injury to the health of the miners. In working coal mines the advantages of bringing down much larger quantities of material with a given charge, and the absence of smoke in the explosion, enable a much greater quantity of work to be done in a given time at a given cost. The weight of gun cotton required to produce a given effect in mining is only one-sixth part of the weight of gunpowder. In blasting rock under water the wider range and greater force of a given charge is a great element in cheapening the cost of submarine work. The peculiar local action of gun cotton, to which the effects of gunpowder show no analogy, enables the engineer to destroy and remove submarine stones and rocks, without the preliminary delay and expense of boring chambers for the charge.

FOR MILITARY ENGINEERING.—The facility of transport is increased, the weight of gun cotton being one-sixth that of gunpowder. The peculiar localised action of gun cotton facilitates the destruction of bridges and palisades, and every obstacle. For submarine explosion, gun cotton has the advantage of a much wider range of destructive power than gunpowder. For the same purpose gun cotton, from its lightness, has the advantage of keeping afloat the water-tight case in which it is contained, while gunpowder sinks it to the bottom.

FOR NAVAL WARFARE.—In the batteries of ships, between decks, and in casemated forts, the absence of smoke facilitates continuous rapid firing. The absence of fouling and of heating are equally advantageous for naval as for military artillery.

GENERAL ADVANTAGES.—Time, damp, and exposure do not alter the qualities of the patent gun cotton. It has already been preserved 10 years without injury or decay. It can be transported through fire without danger, simply by being wetted, and when dried in the open air it becomes as good as before. In the case of a ship, or a fortress, or a city being on fire, this quality may be of the greatest value. It is much safer than gunpowder, owing to its being manufactured in the shape of rope or yarn. It cannot escape from its package, or be spilled by accident. The patent gun cotton is entirely free from the danger of spontaneous combustion, and secures that degree of safety and certainty which, at the time of the original invention, the gun cotton of Schönbein did not possess.

Messrs. THOMAS PRENTICE and Co. are now in a position to contract with the owners of mines, engineers, contractors, and governments for gun cotton prepared in the various forms required for their use. Mining charges will be supplied in the rope form, according to the diameters of bore required, and gun cotton match-line, as well as instructions for using it in mines, will be supplied with it.

The great advantage of gun cotton make its use in practice very much cheaper than its comparative price would appear to show; in blasting rock, for example, the rapidity and quantity of the work done, with a given expense of wages, &c., is largely in favour of gun cotton.

Messrs. THOMAS PRENTICE and Co. are also prepared to manufacture the gun cotton, and deliver it in the form of gun cartridges, adapted to every description of ammunition; all they require for this purpose being a drawing of the gun, gunpowder cartridges, and ammunition, with the specification of weights, sizes, and initial velocities.

Artillerists who prefer to manufacture their own cartridges may make special arrangements with the patentee through Messrs. PRENTICE and Co.

Stowmarket, March 10, 1864.

MR. THOMAS CARTHEW, MINING OFFICES,

17A, SISE LANE, BUCKLERSBURY, LONDON, E.C.

Reliable information respecting mining generally can be obtained by applying as above.

Bankers: Roberts, Lubbock, and Co., 15, Lombard-street, London.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,

SHREWSBURY, has had upwards of 20 years' practical experience in mining, during which time he had the entire management of several English and Welsh mines. Residing in the centre of the CARDIGANSHIRE MINING DISTRICT, and in close proximity to those of MERIONETHSHIRE and MONTGOMERYSHIRE, he OFFERS HIS SERVICES to SURVEY and REPORT UPON ANY MINE.

CAPT. C. WILLIAMS, TYN-Y-WERN, TALIESIN,

SHREWSBURY, has very carefully SELECTED SEVERAL LEAD, COPPER, and GOLD SETTS in the highly mineralised districts of CARDIGANSHIRE and MERIONETH, some of which he is working privately himself, and are turning out very satisfactorily. Mr. WILLIAMS WISHES to MEET with a *bona fide* PARTY who can ASSIST HIM to PROVIDE the NECESSARY MACHINERY to RENDER their PRODUCE MARKETABLE.

CAPT. C. WILLIAMS has FOR SALE FIFTY SHARES in

the HAVAN MINE at 70s. per share, and SIXTY SHARES in the CWMSYMLOG UNITED, at 40s. per share, both free of commission. Mr. WILLIAMS has also a FIRST RATE LEAD AND COPPER MINE TO DISPOSE OF, full particulars of which will be given upon application being made.

Tyn-y-Wern, Taliesin, Shrewsbury, June 8, 1864.

CARDIGANSHIRE MINING OFFICES.

MESSRS. WILLIAMS, BRAY, AND CO. beg to inform their

mining friends and the public generally that, in consequence of the numerous applications and requests they have received, they now UNDERTAKE the INSPECTING and REPORTING on MINES.

The several members of the firm having had many years' experience in mining in all its branches is the best guarantee of their ability in such matters; and they trust that, by carefully examining the mines they visit, and faithfully reporting thereon, and by constantly watching the progress of both old and new undertakings, they will be able to supply a want that has been greatly felt in the district, and give every information and advice that may be required.

OFFICES, 44, MARINE TERRACE, ABERYSTWITH.

MINING OFFICES, 2b, PRINCESS STREET, MANCHESTER.

LEIGH, MOLYNEUX, AND CO., MINE AGENTS AND

SHAREBROKERS, BUY and SELL SHARES of EVERY DESCRIPTION, on commission or for nett cash.

Office of the Hazael Grove Silver-Lead Mining Company (Limited), JAMES LEIGH, secretary.

MR. BRENTON SYMONS, MINING ENGINEER AND

SURVEYOR, can PROCURE MINING SETTS in ANY DISTRICT in CORNWALL or DEVON.—18, Hatton-garden, E.C.

MR. BRENTON SYMONS INSPECTS and REPORTS on

ANY MINERAL PROPERTY. In all cases where procurable a plan will accompany his report.—18, Hatton-garden, E.C.

CHIVERTON MINING DISTRICT.—MR. R. SYMONS begs to

inform the subscribers to his forthcoming Map that the delay of the publication has arisen from the circumstance that the boundaries of some of the mines are undetermined; as soon as these are settled the work will proceed to completion.

Truro, March 24, 1864.

BRITISH AND FOREIGN STOCK, SHARE,

AND MINING OFFICES, No. 2, WINCHESTER BUILDINGS, GREAT WINCHESTER STREET, LONDON, E.C.

Messrs. FULLER AND CO. continue to BUY and SELL EVERY DESCRIPTION of SHARES in BANKS, CANALS, MINES, RAILWAYS, and GOVERNMENT STOCK, either for money or account. Stock Exchange business effected upon the usual commission.

Telegraphic messages promptly attended to, and every information supplied, either personally or by letter. Office hours, from Ten to Four o'clock.

Bankers: The Metropolitan and Provincial Cornhill.

MR. GEORGE HENWOOD, MINING ENGINEER,

LOCHHEAD HOUSE, LOCHWINNOCH, SCOTLAND, OFFERS his SERVICES and ADVICE on mines situated in any part of England, Scotland, Wales, Ireland, Isle of Man, &c. Mr. Henwood's extensive experience in his peculiar department of mining science is well known, and will be exerted to the utmost for the benefit of his clients.

SOUTH AUSTRALIA.—CAPT. BRYANT (for 16 years second

captain of the Burra Burra Mines) is PREPARED to EXAMINE and REPORT upon any MINES or MINERAL DISCOVERIES in the ABOVE-NAMED COLONY.—Address, Capt. BRYANT, Kooringa, South Australia.

MONEY.—CONTRACTORS and OTHERS can be

ACCOMMODATED with LOANS, DISCOUNTS, &c.—Apply to Messrs. WILKINSON and Co., monetary negociators and arbitrators, &c., 25, Birchin-lane, Cornhill, London, E.C.

In Chancery.

PURSUANT to a Decree of the High Court of Chancery, made in the matter of the ESTATE of JAMES HOLLOW, late of the parish of UNY LELANT, HAYLE, in the county of CORNWALL, mine agent, deceased, and in a cause between Richard Hallett, Charles Robert Essex, and Alfred Richards, plaintiffs, and Thomas Hollow, defendant, the CREDITORS of the above-named James Hollow, deceased, are, by their solicitors, on or before the 4th day of July, 1864, to COME IN and PROVE THEIR CLAIMS, at the chambers of the Vice-Chancellor, Sir Richard Torin Kindersley, No. 3, Stone-buildings, Lincoln's Inn, Middlesex, or in default thereof they will be peremptorily excluded from the benefit of the said Decree.

Tuesday, the 12th day of July, 1864, at Twelve of the clock at noon, at the said chambers, is appointed for hearing and adjudicating upon the claims.

J. A. BUCKLEY, Chief Clerk.
DOUGLAS PLUCKNETT HINDLEY,
Dated this 7th day of June, 1864. 10, Old Jewry Chambers, E.C.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL ANNA MINING COMPANY.—By direction of his Honour the Vice-Warden, notice is hereby given that, on the 25th day of June inst., at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, in the county of Cornwall, this Court will PROCEED to MAKE a CALL of ONE POUND PER SHARE on all the contributories settled under Class A of the above-named Company.

All persons interested therein are entitled to attend at the time and place aforesaid, to offer objections to such call.

WILLIAM MICHELL, Registrar.

Dated Truro, June 4, 1864.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the PELYN WOOD MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY, who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby required to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS, at the Registrar's Office, Truro, on or before the 21st day of June inst., or in default thereof they will be excluded from the benefit of any distribution made before such proof.

And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the superior Courts, lawfully authorised to take and receive affidavits and affirmations.

WILLIAM MICHELL, Registrar of the above-named Court,
Dated the 8th day of June, 1864. Truro, Cornwall.

TO COLLIERY PROPRIETORS AND OTHERS.

SALE of STEAM ENGINES, BOILERS, RAILWAYS, PIT HEAD GEAR, WRENCHES, WAGONS, CHAINS, ROPES, and OTHER EFFECTS, At LLANFYNYDD COLLIERY, situate near COED TALON, and midway between WREXHAM and MOLD.

MESSRS. CHURTON AND ELPHICK respectfully announce that they have been favoured with instructions from the proprietors (who are giving up the lease) to SELL, BY AUCTION, on Wednesday, the 29th day of June, 1864, at Eleven for Twelve o'clock most punctually, the undermentioned PLANT and MACHINERY, comprising TWO HORIZONTAL STEAM ENGINES, with TWO 30 ft. BOILERS, pump, head gear, pulleys, whinsey, about 1500 yards of iron railways, including chairs, sleepers, &c.; large quantity of underground railway, chains, ropes, timber in the round, planks and scantling, valuable weighing machine, by Pooley and Son, Liverpool, to weigh 20 tons; about 30 pit wagons, iron plates, cast metal, wire rope, about 280 yards of conducting rods, quantity of 2¼, 1¼, and 1 in. rope; together with a great variety of miscellaneous effects, suitable for colliery purposes.

N.B.—Catalogues may be had a week prior to the sale, at the offices of the auctioneers, Chester and Whitchurch.

WEST RIDING OF YORKSHIRE.

The very IMPORTANT FREEHOLD RESIDENTIAL ESTATE (land-tax redeemed), known as AKETON, otherwise ACTON HALL, with the MANORS or reputed manors of AKETON and FEATHERSTONE, including the VALUABLE ROYALTIES, RIGHTS, MINERALS, QUARRIES, and INCIDENTS THERETO BELONGING, situate in the parish of Featherstone, about two and a-half miles from Pontefract, equi-distant three miles from Castleford and Normanton, skirted on one side by the Lancashire and Yorkshire Railway, and the other by the North Midland. It comprises a MANSION, upon a moderate scale, with tastefully-arranged grounds, pleasantly situate on a side hill, overlooking a large extent of richly-timbered and park-like land, within an easy distance of the celebrated Badsworth and Bramham Kennels, in the heart of the best sporting country in England, surrounded by a DOMAIN of ONE THOUSAND ONE HUNDRED AND TWENTY-FIVE ACRES of HIGHLY PRODUCTIVE LAND, divided into convenient farms, with dwelling-houses, numerous lots of accommodation land and labourers' cottages.

MESSRS. BEADEL are instructed to SELL BY AUCTION, at the Temporary Auction Mart, at the Guildhall Coffee-house, Gresham-street, London, on Thursday, the 28th day of July, at Twelve for One, in ONE LOT, the above VERY IMPORTANT RESIDENTIAL ESTATE, situate in the parish of and adjoining the village of Featherstone, where there is a station on the Lancashire and Yorkshire Railway, equi-distant (three miles) from Normanton and Castleford, on the North-Midland.

It includes a substantially stone-built MANSION, containing lofty and well-proportioned reception-rooms, nine bed-rooms, with the usual domestic offices and outbuildings requisite for the establishment of a gentleman's family, placed on a side hill, with a southern aspect, overlooking a richly-timbered and undulating country, surrounded by a compact DOMAIN of ONE THOUSAND ONE HUNDRED AND TWENTY-FIVE ACRES, divided into TEN CONVENIENT FARMS, with comfortable dwelling-houses, the necessary agricultural buildings, several PLOTS of ACCOMMODATION LAND, and labourers' cottages.

The estate is situate in the most preferable and healthy part of the county, in the heart of the first hunting and sporting district in England. The land is sound and highly productive, and a large portion of it of prime grazing quality.

From a recent survey, it is found to possess the VALUABLE SEAMS OF COAL known as the Stanley Main and Haigh Moor, and there are also EXCELLENT STONE QUARRIES upon the property.

Its cental position, with the unusual facilities offered for the transit of coal, &c., to all parts of the kingdom, render it, in addition to a first-class landed investment, a thoroughly safe and lucrative mining speculation.

Particulars, with plans and conditions of sale, may be obtained at the Elephant Hotel, Pontefract; the Reindeer Hotel, Doncaster; the George Hotel, York; Stafford Arms, Wakefield; the Angel, Sheffield; of Messrs. SIMPSON and DIMOND, No. 10, Henrietta-street, Cavendish-square, W.; at the Guildhall Coffee-house, Gresham-street, London; and of Messrs. BEADEL, 25 Gresham-street, London, E.C.

MINES IN GERMANY, IRON AND MANGANESE.—

SEVERAL MINES, situated near the Rhine (within three miles of Coblentz), are TO BE SOLD at once, owing to the sudden death of the proprietor. The ore is of excellent quality, and has been smelted to great advantage in Neuwied, and various other places.—Further particulars may be had of CARLESS, BLAGDEN, and Co., 2, New London-street, London, E.C.

RICH IRON, COPPER, LEAD, AND ZINC MINES TO

LET.—The hematites, spathose, or steel and titanium iron mines, each extend 1¼ mile. Veins proven 10 to 30 ft. wide. The royalties referred to Glasgow practical ironmasters, freight only 2s. 3d. to Glasgow, and can be put on board for 1s. 9d. The copper, lead, and zinc are very rich. Like the British Copper Company's veins, belonging to Mr. Forlong, beautifully display the great value of the ores. The royalty is only 1-15th, and NO FIXED MONEY RENT ASKED.—Apply to the proprietor W. FORLONG, Esq., of Erins, near Tarbert, Lochfyne.

RICH LEAD DISCOVERY (see notice in another column of this

day's Journal).—This large vein, 9 feet wide and 1½ mile long, has been re-examined. It is easily wrought, and is on the surface. A lease will be given to one or two companies, and offers received till 25th June. Open to inspection.—Apply to WM. FORLONG, Esq., of Erins, Lochfyne.

FOR SALE, a CURRENT GOING COLLIERY and BRICK

WORKS, in a large manufacturing town, doing a considerable trade, and capable of great extension. The connection and profits are good. There are also about TWELVE ACRES of FREEHOLD LAND and SEVENTEEN COTTAGES close to the works (and the greater part of the coal is freehold), which will be sold with the colliery.—Enquire of Mr. M. W. T. SCOTT, mine surveyor, 24, Great George-street, Westminster.

IMPORTANT TO COAL PROPRIETORS, CAPITALISTS,

AND OTHERS.—The OWNERS of VALUABLE MINES of COAL, lying within and under a compact freehold estate of 150 acres, situate about three miles from the important manufacturing town of Blackburn, Lancashire, are PREPARED to treat for the ABSOLUTE SALE of the COAL, or to enter into favourable arrangements for leasing the same for a term of years. Good turnpike roads intersect the estate, and the same is within very easy distance of railway and canal.—For further particulars, apply to Messrs. ROBINSON and SON, solicitors, Blackburn.

TO MERCHANTS, SHIPPERS, ENGINEERS, &C.—TO BE

SOLD, some NEW MACHINERY, which was made for exportation, and intended for the smelting of iron upon a small scale, comprising a PAIR of 24 inch BLOWING CYLINDERS, 3 ft. stroke, fitted with parallel motions, connecting rods, and cranks, to be driven by a water-wheel; also, the necessary winged gudgeons and carriages for water-wheel shaft and the penstock gearing. Also, some small castings, wrought hoops, wrought tunnel head platform, binder plates and rods, blast pipes, water tuyeres, &c., for a smelting furnace 6 ft. in diameter and 26 ft. high. Also, some castings and wrought-iron work for a wood tilt hammer. Also, blast pipes, water tuyeres, and sluice valve for a lumping fire, and a wrought cupola 3 ft. in diameter and 12 ft. high, with sluice valves, pipes, and muzzles.—The machinery, and plans of the same, may be seen on application to J. and G. DAVIES, Albion and Limerick Foundries, Tipton.

HORIZONTAL ENGINES FOR SALE, at very low prices:—

One 12 in. cylinder, 24 in. stroke; one 12 in. cylinder, 36 in. stroke; and two 14 in. cylinders, 24 in. stroke. All ready for delivery, and may be had with or without fly-wheels.—Apply to Messrs. E. PAGE and Co., Laurence Pountney-place, Laurence Pountney-hill, Cannon-street, E.C.

ON SALE, a FIRST-CLASS NEW HORIZONTAL STEAM

ENGINE, has 12 in. cylinder, 2 ft. stroke, with strong link motion to valve for reversing. Very suitable for a winding engine. Price, £75. Also, one same size, with governor complete. Price, £75. Other sizes proportionately low.—Apply to ISAAC W. BOULTON, Ashton-under-Lyne.

TO BE LET, for a term of 21 years, a VALUABLE MINERAL

PROPERTY, situated at the foot of the far-famed Parys Mountain, AMLWCH, ANGLESEY.—For particulars, apply to the proprietor, Mr. GEO. R. HUGHES, Llaethdy Mawr; or to Mr. JAMES M. WILLIAMS, Assay Master to the Mona Mine Proprietors.

Amlwch, Anglesey, North Wales, June 6, 1864.

TO MINE OWNERS AND OTHERS.—The UNDERSIGNED

INVITES TENDERS for the PURCHASE, in one lot, of the MINING MACHINERY and IMPLEMENTS, and OTHER EFFECTS, of the CRAIGTON MINES COMPANY (LIMITED), upon and about the CRAIGTON MINE, at NEWTON STEWART, N.B., where the same may be seen on application to Samuel McDowall, the man in charge. The property is in good working order and condition, and consists of FOUR large and small WATER and OTHER WHEELS, pumps, with rods, buckets, &c., complete; horse gin, with drawing chain, pulleys, crab winch, balance bob, barrows, double crushing mill, with drawing machine attached; chat mill, 4 iron jigging sieves, 6 head stamping mill, jigging tubs, sieves, and all necessary and usual appendages for ore and slime washing; 2 pairs bellows, anvil, vice, and other tools; 2 carpenters' benches, with tools; grindstone, 12 underground wagons, about 7 or 8 tons of iron rails, and a large quantity of iron pipes and iron, and of wood rails and timber; large beam and scales, with weights, and sundry useful patterns; office furniture and other effects.

The property to be taken with all faults (if any), and to be at the sole risk of the purchaser after payment of his purchase-money, and to be removed by and at his expense immediately thereafter.

Tenders to be forwarded to the undersigned, at his office, 62, Moorgate-street, London, by the 24th instant; but the undersigned does not bind himself to accept the lowest or any tender.

JAMES HOLAH, Liquidator.

London, June 11, 1864.

NATIONAL PROVINCIAL BANK OF ENGLAND.—The

Directors of the National Provincial Bank of England hereby give notice that a HALF-YEARLY DIVIDEND at the rate of EIGHT PER CENT. PER ANNUM, and a HALF-YEARLY BONUS of SEVEN PER CENT., will be PAYABLE on the company's stock on and after the 8th July next, when the dividend and bonus warrants will be obtained at the company's office, No. 112, Bishopsgate-street, or at the different branches.

The transfer books will be closed on and after Thursday, the 9th June, until the dividend and bonus become payable.

By order of the Court of Directors,

A. ROBERTSON, Agent and Manager.

112, Bishopsgate-street, London, June 7, 1864.

VALENCIA SLATE SLAB COMPANY (LIMITED).—

In consequence of the applications for shares in this company being in excess of the number to be allotted, the APPLICANTS who have NOT RECEIVED LETTERS of ALLOTMENT are apprised that THEIR DEPOSIT MONEY will be RETURNED to them, on application to the Bank of London, Threadneedle-street.

By order of the Board, HERBERT FARREN, Sec.

BRAZIL.

THE ROSSA GRANDE GOLD MINING COMPANY (LIMITED).

Notice is hereby given that the CERTIFICATES FOR SHARES will be READY FOR DELIVERY, in exchange for the banker's receipts, on application at the company's offices, on or after the 15th day of June, 1864.

By order of the Board, J. JAMESON TRURAN, Sec.

182, Gresham House, Old Broad-street, London, E.C., May 31, 1864.

THE CLOWANCE WOOD MINING COMPANY (LIMITED),

Capital £15,000, in 3000 shares of £5 each; 30s. per share paid.

No call can exceed 10s.

DIRECTORS.

MILES CHARLES SETON, Esq., Treskerby and Wheal Seton, Cornwall—CHAIRMAN.
JAMES BORMAN, Esq., Messrs. Hickie, Borman, and Co., Leadenhall-street, London.
ALEXANDER CALDER, Esq., 79, Cannon-street (Director of the Marine Investment Society).
WILLIAM CREMER, Esq., Brighton (Director of the Terriccio Mining Company).
ROBERT M'CONNELL, Esq., merchant, Liverpool.

BANKERS—The National Bank, London.

AUDITOR—Edward Pullein Esq. (Messrs. Harding, Pullein, Gibbons, and Co.)

OFFICES,—15, NEW BROAD STREET, LONDON.

One hundred and twenty-five shares in this valuable mine to be sold at 31s. 6d. each.

This property is now being actively developed, and promises the most remunerative results, and it is confidently expected that the shares will stand very high in the market.

The mine is situated in the parish of Crowan, the best mining district in Cornwall, and is entirely surrounded by rich and profitable mines, that have been worked to a great depth, viz.—Crenver, Abraham, Binner Downs, Treasury, &c.; and it is the opinion of the best mining authorities that this mine will prove equally as profitable, or more so, than the average of the surrounding mines. The shaft is only 3 fms below the adit, from which several tons of rich ore have been raised; it will, therefore, be seen that the cost of raising the ore will be little, and the chances of large dividends great.

These shares are held by a proprietor who will still retain a large interest in the company.

Further particulars, and plans of the district, may be obtained by addressing Mr. THOMAS, 5, Upper Homerton, London, N.E.

THE GREAT NORTH VOR TIN AND COPPER MINING COMPANY (LIMITED).

To be incorporated under the Joint-Stock Companies Act, 1862, by which the liability of shareholders is strictly limited to the amount of their respective subscriptions.

Capital £25,000, in 5000 shares of £5 each.

Deposit £1 per share on application, and £1 on allotment.

DIRECTORS.

JOSEPH ATWELL, Esq., 72, Bedford-gardens, Kensington (Chairman of the Deal and Walmer Pier Company). [Company).
JAMES BANCKS, Esq., Broxbourne (Director of the Tamar and Callington Railway
ERNEST G. FELLOWES, Esq., Surbiton, Surrey (Director of the Central Grylls Mining Company).
MOFFATT C. W. HORNE, Esq., 29, Guildford-street, Russell-square.
General MASON, South Parade, Trafalgar-square, Brompton.
JOSEPH NIGHTINGALE, Esq., 150, Leadenhall-street, E.C., and Kilburn.

BANKERS—The Alliance Bank (Limited), Lothbury.

BROKERS—Messrs. Aaris and Co., 41, Lombard-street.

SOLICITOR—H. Fryer, Esq., Gray's Inn.

AUDITORS—To be elected by the shareholders.

SECRETARY—G. Bedford, Esq.

OFFICES,—11, ST. BENET'S PLACE, GRACECHURCH STREET.

ABRIDGED PROSPECTUS.

This company is formed for purchasing and working the mines formerly known as the Leedstown Consols and Polgrase, with several contiguous lodes, now all included under the name of Great North Vor. The property will be held under a lease of 21 years, at the low royalty of about 1-18th, and is located in the midst of the Breage and Crowan Mines, which in the aggregate have made returns of about 2,000,000*l*. The mines in this district have sold the richest ores of copper and tin known in Cornwall, and considering the comparatively shallow depth yet attained in most of the mines, the produce in quality and quantity of the ores of metals raised is remarkable. The only two deep mines in the district are on the Wheal Abraham and Great Wheal Vor lodes.

Great North Vor is immediately surrounded by many celebrated mines, which have given immense profits, as will be seen below. The tin and copper lodes contained in this sett are of the same highly mineralised nature as the contiguous lodes, which have been so profitable, and they are all embedded in the congenial killas which forms the basin contained between the Crowan and Godolphin granite ranges. In the opinion of practical miners the celebrated Wheal Vor flookan bisects this sett, heaving the lodes similarly to the Great Wheal Vor lodes, which are, in fact, parallel. To sufficiently realise the importance of this fact it must be remembered that this flookan has had a most material effect upon all the lodes which it intersects, viz.—Great Fortune, Wheal Metal, Great Wheal Vor, Polladras, Wheal Mount, Wheal Mary, Carzise, Tremayne, and Alfred Consols, where large bodies of ore were found on each side of this flookan.

The Great North Vor Mine is situated between Hayle and Camborne, and is within two miles of the main line of railway. The old Godolphin Mine adjoins the sett in the west, Great Wheal Vor lying to the south, while the celebrated Crenver and Abraham is on the east. Each of these mines has, as is well known, returned immense quantities of ore. A provisional agreement has been entered into for the purchase of the leases of this property for £2500 in cash and £3000 in shares fully paid up.

Reports from miners who have been familiar with the district from their youth are furnished, from which it will be evident that this is a very valuable property, and may be looked on as a sound investment.

Applications for shares may be made to the bankers, brokers, or secretary, at the office of the company, where plans and sections, with specimens of the lode, may be seen.

In the event of no allotment being made, all deposits will be returned in full.

LIST OF PROFITS REALISED FROM THE ADJACENT MINES.

East Treasury—First working .. £	90,000	Godolphin	£116,000
" Second working.	50,000	Julia	300,000
Crowder	73,000	Strawberry	120,000
West Treasury	6,000	Relistian—Last working	10,000
Wheal Sarah	85,000	Wheal Janey	30,000
Binner Downs, above the 40	80,000	Tremayne—Present working	2,000
Abraham—Second working	36,000	North Binner Downs	25,000
" First working	250,000	Great Wheal Vor—Last working.	500,000
Carzise	20,000	Wheal Metal	60,000
Wheal Mary	12,000	Great Fortune—Present working	12,000
Wheal Mount	50,000		

NORTH WHEAL SETON COPPER MINING COMPANY (LIMITED).

Capital £25,000, in 1000 shares of £25 each.

Deposit, £2 10s. per share.

CHAIRMAN—J. T. FENTON, Esq., Stapleton House, Leeds, Colliery Owner.

BANKERS—Messrs. Beckitt and Co., Leeds.

SECRETARY—G. Simpson, 55, Albion-street, Leeds.

MANAGERS—C. and C. Thomas, Redruth, Cornwall.

This company is formed for the purpose of working the North Seton Mine, which is situate at Camborne, in Cornwall, the richest district in Europe for copper, and to the west of the celebrated Setons and Tolgus Mines, which have realised immense profits, the West Seton Mine alone having returned in one year £49,000, and still being one of the richest mines in the district.

Shafts have been sunk in this sett, and three promising lodes discovered, two of them from 4 ft. to 5 ft. wide, and the other from 7 ft. to 8 ft. wide.

Applications for shares and prospectuses to be made to Mr. GEORGE SIMPSON, 55, Albion-street, Leeds.

THE CREDIT MOBILIER COMPANY OF LONDON (LIMITED).

54, THREADNEEDLE STREET, LONDON, E.C.

BANKERS.

The London and Westminster Bank, Lothbury, E.C.; and the Union Bank of London.

The company discount approved mercantile and other bills, make advances on negociable securities, and undertake financial business generally.

WILLIAM HALL, Sec.

MR. D. STICKLAND, M.E., having had upwards of 40 years'

mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

MINES INSPECTED and faithfully REPORTED ON. DEALER in MINING, RAILWAY, and OTHER SHARES.

His monthly "Circular" for April contains a selected list of Cornish and other mines. Forwarded on receipt of six postage stamps.

38, Dowgate-hill Chambers, London, E.C.

Tavistock Ironworks, Devon.—(Established 1804.)

GILL AND CO., ENGINEERS AND IRONFOUNDERS, MANUFACTURERS of STEAM ENGINES and BOILERS. CHAINS of ALL DIMENSIONS. STEELED SHOVELS to any pattern. EVERY DESCRIPTION of CAST and HAMMERED IRON for MINING, MANUFACTURING, and AGRICULTURAL PURPOSES.
HAMMER MILLS. EDGE TOOL MANUFACTORY.
FOREIGN MINES SUPPLIED ON LIBERAL TERMS.
VARIOUS DESCRIPTIONS of SECOND-HAND MACHINERY CONSTANTLY ON HAND.
N.B.—AGENTS for TANGEY'S PATENT HYDRAULIC LIFTING JACK, and WESTON'S PATENT DIFFERENTIAL PULLEY BLOCKS.

CLAYTON, SHUTTLEWORTH, AND CO., ENGINEERS,
MANUFACTURERS of PORTABLE and FIXED STEAM ENGINES, MACHINERY for PUMPING, HOISTING, GRINDING, SAWING, &c., ENGINES for STEAM CULTIVATION, SELF MOVING ENGINES for COMMON ROADS and AGRICULTURAL PURPOSES GENERALLY.
STAMP END WORKS, LINCOLN; and
78, LOMBARD STREET, LONDON.
ALSO AT
LOWENGASSE No. 44, LANDSTRASTE, VIENNA, and GEGENUBER DEM BAHNHOF, PESTH.
Descriptive, illustrated, and priced catalogues free per post.
SPECIAL DRAWINGS WHEN REQUIRED.
THE BEST STEAM THRASHING MACHINERY MADE.

ESTABLISHED 1800.

EDGE AND SON,
MANUFACTURERS OF
IMPROVED FLAT and ROUND CHAINS and WIRE ROPES,
For MINING PURPOSES.
BOUKS, KIBBLES, BOILERS, IRON BLOCKS, and BLOCK CHAINS,
RAILWAY COUPLINGS, HORSE TRACES, CRANE CHAINS, USES, and FORGINGS.
MANUFACTORY, COALPORT, SHROPSHIRE.

Prize Medal Awarded Great Exhibition, 1851, for Mining Chains.

Exhibition Medal, 1862.

WEIGHING MACHINERY,
CONSISTING OF
PLATFORM WEIGHING MACHINES and HIND'S PATENT RAIL and ROAD WEIGHBRIDGES, overhead TRAVELLING WEIGHING CRANES and CRABS, RAILWAY WEIGHING TURNABLES, &c.
CRANES
Of the WALL, PILLAR, PORTABLE, or TRAVELLING KINDS; and CRABS and WINCHES for STEAM or HAND POWER, &c. Also, TURNTABLES, WATER COLUMNS, TANKS, and PUMPING MACHINERY, and GENERAL RAILWAY PLANT, manufactured by
RICHARD KITCHIN, ENGINEER AND IRONFOUNDER,
SCOTLAND BANK IRONWORKS, WARRINGTON.

Prize Medal Awarded Great Exhibition, 1851, and International Exhibition, 1862.

PATENT SAFETY FUZE WORKS, TUCKINGMILL, CORNWALL.—We beg respectfully to inform the public that since the decease of the late Mr. THOMAS DAVEY this firm has consisted of JOHN SOLOMON BICKFORD, GEORGE SMITH, FRANCIS PRYOR, SIMON DAVEY, and WILLIAM BICKFORD SMITH. It is requested that all letters may be addressed, and all cheques and drafts made payable to us, as
BICKFORD, SMITH, AND CO.

THE UNITY PATENT SAFETY FUSE COMPANY SCORRIER, CORNWALL, SOLICIT ORDERS for the DIFFERENT KINDS of SAFETY FUSE which they are PREPARED to SUPPLY, of SUPERIOR QUALITY, and of ANY LENGTH.

BASTIER'S PATENT CHAIN PUMP, APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects armers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine, as daily demonstrated by use:—

1.—It utilises from 90 to 92 per cent. of the motive power.
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility and economy.
5.—It raises with the water, and without the slightest injury to the apparatus, sand mud, wood, stone, and every object of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wheal Concord Mine, South Sydenham, Devon, near Tavistock; and a shipping pump at Woodside Graving Dock Company (Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT to ERECT his PATENT PUMP at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE of his INVENTION.
OFFICES, 47, WARREN STREET, FITZROY SQUARE.
London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER, C.E.

PUBLIC COMPANIES' ARTICLES OF ASSOCIATION, and ALL FORMS and BOOKS REQUIRED UNDER the COMPANIES ACT, 1862, are SUPPLIED by LETTS, SON, AND CO., CITY AGENTS for the REGISTRATION of PUBLIC COMPANIES, and for the PUBLICATION of REGISTERED FORMS, 8, ROYAL EXCHANGE, E.C. The following are kept in stock:—

MEMO OF ASSOCIATION.	REGISTER OF MEMBERS.
ARTICLES OF ASSOCIATION.	MEMBERS' ADDRESS BOOK.
APPLICATION FOR CERTIFICATE OF INCORPORATION.	NUMERICAL REGISTER OF SHAREHOLDERS.
RETURN SHEETS. [BOOKS.	REGISTER OF CALLS.
APPLICATION AND ALLOTMENT	SHARE LEDGER.

Share and transfer certificates, seals, &c., designed and engraved by LETTS, SON, and Co., manufacturing stationers, 8, Royal Exchange, E.C. Factory, 3, Old Swan-lane.

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I shall be glad to SUPPLY SAMPLES and PRICES of DANIEL COLLINGE AND SON'S PATENT SPONGE CLOTHS, which are a VALUABLE SUBSTITUTE for COTTON WASTE in the CLEANING of ENGINES and MACHINERY.
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FOR REMOVING AND PREVENTING
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MANUFACTURED by GEORGE LOW,
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The TURBINE, WINDING, and PUMPING MACHINERY are all fixed complete to one strong cast-iron bed plate, which can be placed in any situation without pit or excavation, and any height not exceeding 33 ft. from bottom of fall, the supply and suction pipe being all that is required to be connected to it, and can be brought in any direction. This combined machine can be easily removed when necessary.
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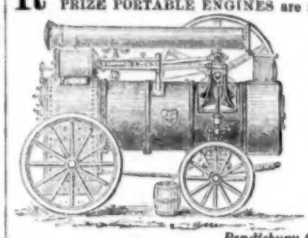

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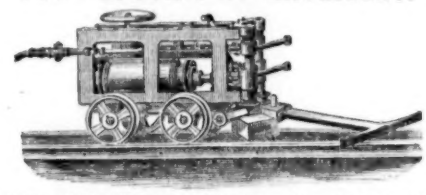

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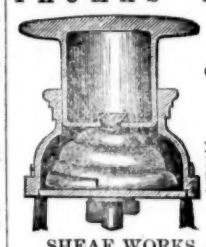

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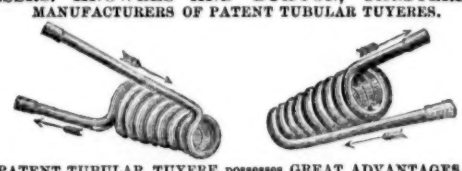

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We repair them at half the first cost, making them equal in size to new ones, all parties returning them carriage paid.

No. 1 tuyere,	16 in.	long	28s. each.
No. 2	18	"	32s. "
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3¼ in.	18	5*	16 10	11 10
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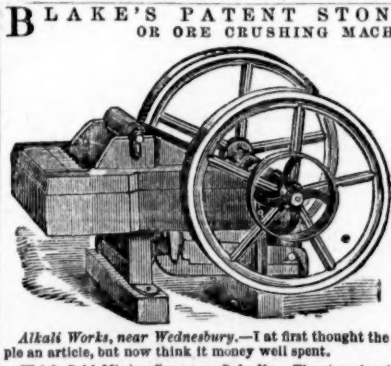

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MEADOW LANE, LEEDS.
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Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last paid.
1200	Alderley Edge (cop.), Cheshire [L.]	10 0 0	—	..	.. 9 13 0 .. 0 15 0	—Feb. 1864
4000	Bedford United (copper), Tavistock†	2 6 8	2½	2¼ 2½	.. 13 6 6 .. 0 2 6	—April, 1864
1948	Boscaswell (tin, copper), St. Just	6 15 0	—	..	.. 1 5 0 .. 0 5 0	—May, 1864
200	Botallack (tin, copper), St. Just	91 5 0	—	..	.. 477 15 0 .. 3 0 0	—May, 1864
5000	Bronfloyd (lead), Cardigan [L. £3]	2 7 6	—	..	.. 0 19 0 .. 0 2 6	—April, 1864
918	Cargoll (silver-lead), Newlyn	15 5 7	30	.. 30 32	.. 7 15 0 .. 0 10 0	—May, 1864
1800	Carn Brea (copper, tin), Illogan	15 0 0	—	.. 60 65	.. 280 10 0 .. 2 0 0	—June, 1864
2900	Clifford Amalgamated (cop.), Gwen	30 0 0	34½	.. 34½ 35½	.. 31 8 6 .. 0 10 0	—April, 1864
12000	Copper Miners of England	25 0 0	—	..	.. 7½ per cent.	—Half-yrly.
40000	Ditto ditto (stock)	100 0 0	—	..	.. 1 per cent.	—Half-yrly.
867	Cwm Erfin (lead) Cardiganshire [L.]	7 10 0	—	..	.. 11 8 0 .. 0 15 0	—Mar. 1864
128	Cwmystwith (lead), Cardiganshire*	60 0 0	—	..	.. 263 10 0 .. 4 0 0	—April, 1864
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	—	.. 560 570	.. 913 0 0 .. 12 0 0	—May, 1864
358	Dolcoath (copper, tin), Camborne*	128 17 6	—	..	.. 756 10 0 .. 8 0 0	—April, 1864
12800	Drake Walls (tin, copper), Calstock	2 1 0	—	.. 1¼ 1¼	.. 0 18 0 .. 0 1 6	—May, 1863
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	66	.. 64 66	.. 121 0 0 .. 2 0 0	—May, 1864
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	29	.. 28 29	.. 10 5 0 .. 1 2 6	—April, 1864
800	East Darren (lead), Cardiganshire*	32 0 0	—	..	.. 95 10 0 .. 2 0 0	—April, 1864
128	East Pool (tin, copper), Pool, Illogan	24 5 0	—	..	.. 365 10 0 .. 7 10 0	—April, 1864
1906	East Wheal Lovell (tin), Wendron	2 13 6	20	.. 17½ 18½	.. 1 10 0 .. 0 10 0	—May, 1864
2800	Foxdale (lead) Isle of Man [L.]	25 0 0	—	..	.. 63 0 0 .. 1 0 0	—April, 1864
5000	Frank Mills (lead), Christow	3 18 6	—	..	.. 1 4 6 .. 0 4 0	—May, 1864
12500	Great Laxey (lead), Isle of Man [L.]	4 0 0	14	.. 14 15	.. 0 11 0 .. 0 5 0	—June, 1864
1798	Great Wheal Fortune (tin), Breage	18 6 0	15	.. 13½ 14½	.. 5 15 0 .. 0 10 0	—Nov. 1863
5908	Great Wh. Vor (tin, cp.), Helston [S.E.]	40 0 0	34½	.. 33½ 34½	.. 3 7 6 .. 0 10 0	—Mar. 1864
118	Great Work (tin), Germoe	100 0 0	—	..	.. 5 0 0 .. 5 0 0	—Feb. 1864
1024	Herodsfoot (id.), near Liskeard [S.E.]	8 10 0	—	..	.. 28 0 0 .. 1 15 0	—Feb. 1864
400	Lisburne (lead), Cardiganshire, Wales*	16 15 0	—	..	.. 418 10 0 .. 3 0 0	—Mar. 1864
9000	Marke Valley (copper), Caradon	4 10 6	4½	.. 4½ 4¾	.. 2 13 0 .. 0 1 0	—April, 1864
1800	Minera Mining Co. [L.], (id.), Wrexham	25 0 0	—	..	.. 145 18 0 .. 10 0 0	—May, 1864
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	—	..	.. 16 19 7 .. 0 12 3	—Jan. 1864
40000	Mwyndy (iron ore) [L. £4] [S.E.]	2 10 0	—	..	.. 0 4 0 .. 0 2 0	—April, 1864
250	Nanty Mines (lead), Montgomery	20 0 0	—	..	.. 6 0 0 .. 1 0 0	—Mar. 1864
6000	New Birch Tor and Vitifer Cons. (tin)	1 6 8	—	.. 2¼ 3	.. 0 8 0 .. 0 2 6	—April, 1864
5936	North Treskerby (copper), St. Agnes	1 9 0	—	..	.. 0 13 0 .. 0 2 6	—Feb. 1864
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	—	..	.. 36 19 0 .. 0 2 6	—Mar. 1863
202	Parys Mines (copper), Anglesey [L.]	50 0 0	—	..	.. 102 10 0 .. 10 0 0	—April, 1864
1772	Polberro (tin), St. Agnes	15 0 0	—	..	.. 7 19 6 .. 0 10 0	—Nov. 1863
512	Polbreen (tin), St. Agnes	8 0 0	—	..	.. 1 0 0 .. 1 0 0	—July, 1863
112	Providence (tin), Uny Lelant† [S.E.]	10 6 7	40	.. 39 40	.. 73 5 0 .. 1 0 0	—May, 1864
6000	Rosewall Hill and Ransom United	2 16 0	—	..	.. 0 10 0 .. 0 1 6	—June, 1863
512	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	—	..	.. 438 10 0 .. 6 0 0	—May, 1864
512	South Tolgus (cop.), Redruth, Cornwall*	8 0 0	—	..	.. 74 10 0 .. 1 0 0	—May, 1863
496	S. Wh. Frances (cop.), Illogan* [S.E.]	18 18 9	45	.. 40 45	.. 370 13 6 .. 1 0 0	—Nov. 1863
4000	St. Day United (tin), Redruth	14 0 0	8	..	.. 0 5 0 .. 0 5 0	—Mar. 1864
940	St. Ives Consols (tin), St. Ives†	8 0 0	—	..	.. 490 10 0 .. 0 10 0	—May, 1864
6000	Tincroft (cop. tin), Pool, Illogan [S.E.]	9 0 0	19	.. 17½ 18½	.. 14 8 6 .. 0 10 0	—Mar. 1864
4200	Vigra and Clogau (copper) [L. £5]	4 0 0	—	..	.. 6 2 6 .. 1 10 0	—Mar. 1864
6000	West Basset (copper), Illogan [S.E.]	1 10 0	—	..	.. 25 8 0 .. 0 5 0	—May, 1864
3000	W. Chiverton, (id.), Perranzabuloe [S.E.]	—	..	75 .. 67½ 73½	.. 2 5 0 .. 0 15 0	—April, 1864
256	West Damsel (copper), Gwennap	38 10 0	—	..	.. 49 10 0 .. 1 0 0	—May, 1864
400	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	.. 190	.. 180 190	.. 405 0 0 .. 4 0 0	—April, 1864
512	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	95	.. 90 95	.. 600 0 0 .. 1 10 0	—June, 1864
1000	Wheal Basset and Grylls (tin)	7 0 0	—	..	.. 3 0 0 .. 0 10 0	—Oct. 1863
1024	Wheal Grylls (tin), Perranuthnoe	2 4 0	—	.. 12 14	.. 6 2 0 .. 1 0 0	—Sept. 1863
512	Wheal Jane (silver-lead), Kea	3 10 0	—	..	.. 14 10 0 .. 0 10 0	—May, 1864
4295	Wheal Kitty (tin), St. Agnes	5 4 6	6½	.. 6 6¼	.. 1 13 6 .. 0 5 0	—April, 1864
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	2 0 6	—	.. 10¼ 11¼	.. 9 15 0 .. 0 7 6	—April, 1864
896	Wh. Margaret (tin), Uny Lel. [S.E.]	9 17 6	15	.. 14 15	.. 76 5 0 .. 1 0 0	—May, 1863
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0	16	.. 14½ 15½	.. 57 17 6 .. 0 10 0	—Mar. 1864
80	Wheal Owles (tin), St. Just, Cornwall	70 0 0	—	..	.. 343 3 0 .. 5 0 0	—May, 1864
396	Wheal Seton (tin, copper), Camborne	58 10 0	.. 227½	.. 230 235	.. 170 15 0 .. 4 0 0	—April, 1864
1040	Wh. Trelawny (sil.-id.), Liskeard [S.E.]	5 17 0	21	.. 19½ 20½	.. 49 12 6 .. 0 12 6	—May, 1864
2044	Wheal Tremayne (tin), Gwinear	6 11 3	—	..	.. 0 15 0 .. 0 5 0	—Nov. 1863
7000	Wicklow (copper) [L.], Wicklow	2 10 0	—	..	.. 14 11 0 .. 0 6 0	—April, 1864

[* Dividends paid every two months. † Dividends paid every three months.]

BRITISH MINES WITH DIVIDENDS IN ABEYANCE.

240	Boscean (tin), St. Just	20 10 0	—	..	.. 36 10 0 .. 1 0 0	—Mar. 1862
3000	Chiverton (lead), Perranzabuloe [S.E.]	5 0 0	12	.. 10 12	.. — — —	—
256	Condurrow (cop., tin), Camborne	45 0 0	—	.. 70 80	.. 85 0 0 .. 2 0 0	—June, 1857
2450	Cook's Kitchen (copper), Illogan	17 15 9	—	.. 20 21	.. 1 7 0 .. 0 7 0	—May, 1862
1024	Copper Hill (copper), Redruth	12 0 0	—	..	.. 2 7 6 .. —	—Sept. 1862
1055	Craddock Moor (copper), St. Cleer	8 0 0	—	..	.. 7 12 0 .. 0 4 0	—July, 1862
280	Derwent Mines (sil.-lead), Durham	300 0 0	—	..	.. 147 0 0 .. 5 0 0	—June, 1862
4076	Devon and Cornwall (cop.), Tavistock	6 6 3	—	..	.. 0 10 0 .. 0 2 6	—Feb. 1859
3000	Dyfngwm (lead), Wales	12 6 6	—	..	.. 0 17 6 .. 0 2 6	—Jan. 1863
940	Fowey Consols (copper), Tywardreath	4 0 0	—	..	.. 41 9 3 .. 0 2 6	—June, 1860
6000	Great South Tolgus, Redruth	0 14 6	—	.. 2¼ 2½	.. 7 18 6 .. 0 5 0	—Dec. 1861
10240	Gunnis Lake (Clitters' Adit)	0 2 0	—	..	.. 0 3 0 .. 0 1 6	—Mar. 1862
160	Levant (copper, tin), St. Just	2 10 0	—	..	.. 1091 0 0 .. 5 0 0	—May, 1860
640	Mount Pleasant (lead), Mold	4 0 0	—	..	.. 18 18 1 .. 0 7 6	—Aug. 1862
5000	Orsedd (lead), Flintshire	0 0 8	—	..	.. 0 10 4 .. 0 0 8	—Mar. 1862
5000	South Exmouth (lead), Christow	1 10 0	—	..	.. 0 5 0 .. 0 5 0	—Dec. 1862
280	Spearne Moor (tin, copper), St. Just	31 17 9	—	..	.. 9 15 0 .. 1 0 0	—June, 1862
572	Trelyon Consols (tin), St. Ives	12 10 0	—	..	.. 7 0 0 .. 0 10 0	—Sept. 1860
1000	Trumpet Consols (tin), near Helston	11 10 0	—	..	.. 11 0 0 .. 2 0 0	—Mar. 1862
12000	Twelve Apostles Amal. (id.), Wrexham	1 0 0	—	..	.. — — —	—
1024	Wendron Consols (tin), Wendron	18 3 10	3	..	.. 8 15 0 .. 1 0 0	—Jan. 1861
60	West Burton Gill (lead), Yorkshire	50 0 0	—	..	.. 14 10 0 .. 3 0 0	—June, 1861
1024	West Caradon (cop.), Liskeard [S.E.]	5 0 0	—	..	.. 101 1 3 .. 0 10 0	—Oct. 1862
1024	Wheal Friendship (copper), Devon	—	—	..	.. 295 10 0 .. 5 0 0	—April, 1864
6400	West Fowey Consols (tin and copper)	7 10 0	—	..	.. 0 19 0 .. 0 3 0	—May, 1862
100	Wheal Mary (tin), Lelant	36 2 6	—	..	.. 284 5 0 .. 4 0 0	—Mar. 1862

FOREIGN DIVIDEND MINES.

20000	Australian (cop.), S. Australia [S.E.]	7 7 6	—	..	.. 0 1 0 .. 0 1 0	—Dec. 1863
2484	Burra Burra (cop.), South Australia	5 0 0	—	..	.. 315 0 0 .. 5 0 0	—Mar. 1864
6000	Central American (silver) [L.]	5 0 0	—	..	.. 4 6 8 .. 0 14 10	—Dec. 1863
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	36	.. 34 36	.. 99 12 0 .. 1 0 0	—Jan. 1864
100000	Don Pedro No. Del Rey [L. £1] [S.E.]	0 10 0	—	.. ⅜ ⅝	.. 0 0 9 .. 0 0 9	—Dec. 1863
70000	English and Australian [S.E.]	5 0 0	—	..	.. 1 10 0 .. 0 2 6	—Feb. 1864
18000	East Indian Coal, Calcutta [L.]	10 0 0	—	..	.. 7½ per cent.	— Yearly.
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	4¼	.. 3¾ 4¼	.. 0 11 4 .. 0 3 0	—Feb. 1864
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	22	..	.. 19 15 0 .. 0 10 0	—June, 1863
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1¼	.. 1 1¼	.. 0 11 0 .. 0 1 0	—Jan. 1863
15000	Linares (id.), Pozo Ancho, Spain [S.E.]	3 0 0	—	.. 5½ 6¼	.. 9 11 2 .. 0 5 0	—Oct. 1863
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	—	.. 7 9	.. 1 7 3 .. 0 7 3	—Jan. 1864
97500	Port Phillip (gold), Clunes [S.E.]	1 0 0	—	.. 1¼ 1⅜	.. 0 11 0 .. 0 1 6	—Jan. 1864
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	48	.. 43 45	.. 61 5 0 .. 3 0 0	—Dec. 1863
43174	Unit. Mexican (sil.), Mexico [S.E.]	Av. 28 5 0	6¼	..	.. 2 14 0 .. 0 5 0	—May, 1864
10000	Vancouver (coal) [L. £10]	5 0 0	—	..	.. 0 5 0 .. 0 5 0	—Oct. 1863
20000	West Canada Mining Company [L.]	1 0 0	—	..	.. 0 7 0 .. 0 3 0	—Nov. 1863
45000	Yudanamutans (cop.), S. A. [L.] [S.E.]	3 0 0	3½	.. 2¾ 3	.. 0 5 0 .. 0 5 0	—Aug. 1863

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Alten and Quenangen Uni. (cop.) [L. £5]	4 10 0	—	..	.. 4 5 0 .. 0 15 0	—Nov. 1853
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	—	..	.. 6 18 0 .. 0 10 0	—Nov. 1862
10000	Gt. Barrier Land, Min., &c., N. Ze. [L. £5]	4 10 0	—	..	.. 15 per cent.	—May, 1859
10000	Lusitanian (of Portugal) [S.E.]	2 0 0	—	..	.. 0 19 9 .. 0 1 0	—Feb. 1862
103815	Mariquita and New Granada [S.E.]	1 0 0	¾	..	.. 0 9 6 .. 0 1 6	—July, 1859

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
100000	Anglo-Brazilian (gold) [L. £1] [S.E.]	0 5 0	—	..	..Dec. 1863
35000	Alamillos (lead), Spain [L. £3]	0 12 6	1⅛	.. ⅞ 1	..Mar. 1864
20000	Beariz Tin Streaming Company [L. £1]	0 17 6	—	..	..Oct. 1863
18000	Cape Copper Mining Company [L. £10] [S.E.]	7 0 0	12½	.. 11½ 12½	..Feb. 1864
25000	Capula (silver), Mexico [L. £2] [S.E.]	1 0 0	—	..	..Feb. 1864
17000	Central Italian (copper) [7000 £2 paid]	0 6 0	—	..	..Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	1 2 6	—	..	..July, 1862
10000	Copiapo Smelting [L.], Chili	10 0 0	—	..	..Fully paid.
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	..	..Fully paid.
50000	East del Rey (gold), Brazil [L. £3] [S.E.]	1 5 0	—	.. ⅛ ¾	..Oct. 1863
30000	East Kongsberg Native Silver Mining Co. of Norway [L. £5]	1 12 0	—	..	..Dec. 1863
15000	El Chico Mining and Reduction (silver) [L. £5]]	3 0 0	—	..	..Mar. 1864
20000	Elbe Colliery Company, Bohemia [L.]	1 0 0	—	..	..Fully paid.
30000	Ellerslie and Bardowie (copper), Jamaica	0 18 0	—	..	..July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0	—	..	..Fully paid.
40000	Fortune (copper), West Australia [L.]	2 0 0	—	..	..Fully paid
50000	Frontino and Bolivia (gold), New Granada [L. £2]	0 10 0	—	..	..Mar. 1864
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 10 0	—	..	..June, 1862
24000	Hindostan (copper), Bengal [L. £5]	3 0 0	—	..	..Feb. 1863
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—	..	..Fully paid.
10000	Karbitz Colliery Company [L.]	1 0 0	—	..	..Fully paid.
80000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	—	..	..Fully paid.
100000	Montes Aureos (gold), Brazil [L.] [S.E.]	2 0 0	2⅜	..	..Fully paid.
2000	New Burra Burra (copper) (Australia)	5 0 0	—	..	..Aug. 1862
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	—	..	..Nov. 1858
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	0 17 6	—	..	..
50000	Nova Scotia (land and gold) [L. £2]	1 0 0	—	..	..Nov. 1862
15000	Pachuca Silver Mining Company, Mexico [L. £1]	1 0 0	—	..	..June, 1863
80000	Panuelillo (copper) [L. £4]	1 0 0	—	.. 1¼ 2	..Feb. 1864
4000	Peel River Land and Mineral [Limited]	100 0 0	—	..	..Stock.
23000	Quebrada (copper), Venezuela [L. £10]	4 10 0	—	..	..Jan. 1864
10000	San Roque (lead), Spain	5 0 0	—	..	..Fully paid.
60000	Santa Barbara (gold), Brazil [L. £1]	0 12 6	—	.. ⅜ ⅝	..Jan. 1864
120000	Scottish Australian Mining Company [L. £1]	0 17 6	—	..	..Feb. 1864
15000	South Europe Mining Company. Spain [L. £5]	3 0 0	—	..	..May, 1860
12000	Tepiltz Colliery Co., Bohemia [L. £5]	3 0 0	—	..	..June, 1863
8000	Valgodemard Mining Company [L. £20]	6 0 0	—	..	..Mar. 1864
50000	Vallanzasca (gold), Italy [L. £1] [S.E.]	0 7 6	—	.. 1¼ 1⅜	..Dec. 1863
45000	Victor Emanuel (copper), Italy [L.]	1 0 0	—	..	..Fully paid.
1000	Western Africa Malachite (copper) [L.]	110 0 0	—	..	..Oct. 1862
12000	Wheal Ellen (copper), South Australia [L.]	5 0 0	—	..	..Fully paid.
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	—	.. ¾ 1	..Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
700	Aberdovey (sil.-lead), Merio	4 0 0	—	..	..Sept. 1863
6000	Bagtor (tin) [L.]	2 0 0	—	..	..Fully paid.
1000	Baldwin, (id.), [L. £5] [400 £5 pd., 600 5s. pd.]	..	..	..	..Mar. 1863
10000	Bampfylde (copper), Devon	1 0 0	—	..	..Aug. 1860
4000	Bedford Cons. (cop.), Tavistk.	2 8 0	—	..	..Mar. 1864
3200	Bedol Aur (lead), Holywell	0 12 0	—	..	..June, 1864
2000	Berehaven (copper), Ireland	1 0 0	—	..	..
400	Billins [L. £30] [200 £25 pd., 200 £30 pd.]	..	..	..	..Oct. 1863
6000	Boscawen (tin), Kenwyn	2 10 0	—	..	..Feb. 1864
3280	Boscundle (tin, cp.), St. Austell	7 10 0	—	..	..Sept. 1862
5000	Bottle Hill (tin) Plympton	1 8 6	—	..	..May, 1864
30000	Bromlow (id.), Minsterley, Salop	1 0 0	—	..	..Fully paid.
200	Brynford Hall (lead), Flint	30 0 0	—	..	..Aug. 1863
500	Bryn Gwiog (lead), Flint	8 0 0	—	..	..July, 1863
1832	Bryntail (lead), Llanidloes	8 7 6	—	..	..June, 1864
6380	Buller & Basset, (cp.) Redruth	4 6 6	—	..	..Aug. 1863
12000	Calstock Consols (cop.), Calst.	1 17 6	—	..	..
915	Calvadnack (tin), Wendron	24 3 6	—	..	..Nov. 1863
1000	Camborne Consols (copper)	18 10 0	—	..	..Feb. 1864
4600	Camborne Vean & Wh. Francis	9 13 4	—	..	..Feb. 1864
75000	CambrianConsolid. (gd.) [L. £2]	1 0 0	—	..	..Aug. 1862
8000	Cape Cornwall (cop.), [L. £2 10s.]	0 15 0	—	..	..Mar. 1864
12000	Caradon & Phœnix Con. [L. £1]	0 10 0	—	..	..
914	Caradon Cons. (cop.), St. Cleer	28 4 6	—	..	..Dec. 1863
10000	Caradon Vale (copper)	—	—	..	..
6000	Caradon Unit. (cop.), St. Neots	1 0 0	—	..	..June, 1863
2580	Carmarthen United (lead)	5 0 0	—	..	..Fully paid.
2000	Carnelloe (tin and cop.), Zennor	1 0 0	—	..	..Jan. 1864
6000	Carn Camborne (cop.), Cambn.	1 7 0	.. 1¼	..	..April, 1864
3000	Carn Vivian (tin, cop., lead)	2 1 6	—	..	..Nov. 1861
2048	Carnyorth (tin), St. Just	4 5 0	—	..	..June, 1863
20000	Caryafort [3200 £2½ pd., 16800 £1 pd.]	—	—	..	..
10000	Castleward, Ireland [L.]	1 0 0	—	..	..Fully paid.
3500	Cefn Cilcen (id.), Flint [L. £5]	2 7 0	—	..	..Mar. 1864
800	Cefn Cwm Brwyno (lead)	4 0 0	—	..	..May, 1864
2000	Central Grylls (tin) [L. £3]	2 10 0	—	..	..Feb. 1864
2500	Central Minera (lead) [L. £5]	2 10 0	—	..	..Mar. 1864
6000	Charlotte Untd., Perranuthnoe	4 17 8	—	..	..June, 1864
5000	Chiverton Consols (sil.-lead)	0 5 0	—	..	..
3000	Chiverton Moor (lead)	3 0 0	5¼	..	..Oct. 1863
3000	Chiverton Valley (lead)	3 0 0	—	..	..Feb. 1864
1000	Chiverton Wheal Hope (lead)	5 0 0	—	..	..Feb. 1864
3000	Chiverton Wheal Rose (sil.-id.)	0 16 8	—	..	..Oct. 1863
4000	Clara Unit., Ponterwyd [L. £3]	2 2 0	—	..	..Jan. 1864
1024	Cleer's Hill (tin), St. Stephen's	0 2 0	—	..	..
787	Clijah & Wentworth (tin, cp.)	32 10 0	—	..	..Mar. 1864
3000	Clowance Wood [L. £5]	1 10 0	1¾	.. 1⅛ 1¾	..May, 1864
3565	Coed Mawr Pool (lead) [L.]	5 0 0	—	..	..April, 1863
16000	Coolartra & Bond [L.] [5300 £1 pd., 10700 12s. pd.]	..	..	..	..Jan. 1864
50000	Connorree (cop., sulph.) [L.]	1 0 0	—	..	..Fully paid.
6000	Cornish Clay and Tin [L.]	1 0 0	—	..	..Fully paid.
861	Crane (copper), Camborne	22 10 0	.. 13	.. 11⅛	..Mar. 1864
30000	Crenver and Wh. Abraham [L.]	2 10 0	—	..	..
12000	Crelake (cop.), Tavistock	2 13 0	—	..	..April, 1864
6000	Crowan Cons. (cop.) [L. £2]	—	—	..	..Aug. 1863
2000	Crowlwm (lead), Llanidloes	1 11 0	—	..	..Dec. 1863
6000	Cuddra (cop., tin), St. Austell	4 1 0	—	..	..Feb. 1864
35000	Dale (lead), North Stafford	1 0 0	—	..	..Fully paid.
200	Darren (lead), Cardigan	32 0 0	.. 52	.. 49 51	..May, 1864
2000	Deep Level, Miners (id.) [L. £5]	3 5 0	—	..	..Feb. 1862
672	Ding Dong (tin), Gulval	44 10 6	—	..	..Dec. 1863
20000	Doifrwynog (gold) [L. £1]	0 13 6	—	..	..Mar. 1864
1000	Durlo (tin), Lelant	8 2 0	—	..	..Oct. 1862
1000	Eaglebrouk (lead) [L. £20]	17 2 0	—	..	..Feb. 1863
1000	East Basset and Grylls (tin)	2 0 0	—	..	..May, 1864
6000	E. Bottle Hill (tin), Plympton	0 3 6	—	..	..April, 1864
4096	E. Brookwood (cop.), Ashburton	1 7 0	—	..	..Jan. 1863
50000	East Cambrian (gold) [L. £1]	0 15 0	—	..	..Feb. 1864
6000	East Carn Brea (cop.) Redruth	3 15 0	.. 9	.. 7¾ 8¼	..Feb. 1863
2000	East Chiverton (lead)	2 3 0	—	..	..Mar. 1864
50000	E. Clogau (gold), Merio. [L. £1]	0 6 0	—	..	..Mar. 1864
4000	East Devon Gt. Consols (cop.)	1 14 0	—	..	..May, 1864
2048	E. Falmouth (s.-id.), Kenwyn	5 0 6	—	..	..April, 1864
6000	E. Grenville (cop.), Camborne	2 5 0	.. 5⅛	.. 4¼ 4½	..May, 1864
6000	E. Gt. Work (tin), Breage [L. £5]	2 10 0	—	..	..May, 1864
4000	E. Gunnis Lake & S. Bedf. (cop.)	7 10 6	.. ⅜	.. ⅛ ⅜	..Jan. 1864
60	E. Laxey (lead), Isle of Man	100 0 0	—	..	..Fully paid.
6145	East Jane (sil.-id.), Cardinham	2 7 0	—	..	..Mar. 1864
1024	E. Margaret (tin), Uny Lelant	19 10 0	—	..	..May, 1864
8000	E. Polberro (tin) [L. £1] [4000 £1 pd. 4000 2s. 6d. pd.]	..	..	..	..Nov. 1863
3986	E. Providence (tin), Uny Lel.	4 4 8	—	..	..Dec. 1863
5000	E. Rosewarne (cp., tin), Gwin.	2 15 0	.. 3¼	.. 2¾ 3	..Sept. 1862
5610	East Seton (cop.), Camborne	0 10 0	—	..	..Dec. 1863
256	East Tolgus (copper), Redruth	86 0 0	—	..	..Mar. 1864
1024	E. Treskerby (cop.), Redruth	8 16 0	—	..	..Mar. 1864
1190	E. Wheal Agar (cop.), St. Cleer	11 17 0	—	..	..Sept. 1863
1300	E. Wheal Ellen (cop.) St. Agnes	0 7 6	—	..	..April, 1864
2000	E. Wh. Fortune (tin) Sithney	1 0 0	—	..	..April, 1863
2048	East Wheal Grylls (tin, cop.)	1 10 0	—	..	..June, 1863
6000	East Wheal Metal (tin and cop.)	—	—	..	..
4000	E. Wh. Russell, Tavis. [S.E.]	8 15 6	.. 4½	.. 4 4¼	..Mar. 1864
6000	East Wheal Vor (tin and cop.)	5 0 0	—	..	..
2000	Erwfelin (lead), [L. £2]	1 0 0	—	..	..
6144	Esther Und. (tin), Cardingham	0 1 4	—	..	..Mar. 1864
6000	Fortescue Cons. (sil.), Endellion	0 12 6	—	..	..
6000	Furze Hill Wood Cons., Buckl.	1 5 6	—	..	..April, 1864
1026	Garden (tin), Morvah	4 17 9	—	..	..May, 1863
4096	Garlidna Untd. (tin), Wendron	4 1 6	—	..	..Mar. 1864
1000	Garreg (lead), Flint	5 14 6	—	..	..Dec. 1863
4000	Gawton (copper), Tavistock	2 8 0	.. 1	.. ¾ 1	..Feb. 1864
6000	Gen. Min. Co. for Irel. (cop.)	4 0 0	—	..	..
30000	Glasgow Caradon Con. (cp.) [L.]	1 0 0	—	..	..Fully paid.
5700	Goginan (sil.-id.) [1900 £12½, 3800 30s.]	—	—	..	..April, 1864
2000	Golch Hill (lead), Flintshire	1 0 0	—	.. 3 3½	..
6144	Gonamena (copper), St. Cleer	4 7 0	.. 4	.. 3¾ 4¼	..Mar. 1864
2000	Goonzion (copper), St. Neot	1 7 6	—	..	..Mar. 1864
486	Gramb. & St. Aub. (cp.) [S.E.]	61 0 0	.. 12	..	..May, 1864
5000	Great Brigan (cop.), Redruth	6 7 6	—	..	..May, 1864
4096	Great Caradon (cop.), St. Ive	2 10 0	.. 2	.. 2	..Mar. 1864
10000	Gt. Dev. & Bed. [L.] [2800 50s. fully pd.]	—	—	..	..
3000